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ABSTRACT

In June, 1971, the Social Science Education Consortium (SSEC) received a grant for a project--namely, Student Assisted Development of Materials for Environmental and Social Studies (SADMESS)--which employed high school students to develop curriculum materials emphasizing the social science aspects of environmental education. SADMESS personnel consisted of professional educators and staff of SSEC, and 8 students from local high schools in Boulder, Colorado. Two books were developed by the project staff: "Sunshine Unfolding," (SO 006 207), which focuses on the philosophical/religious approaches to man, and the "Boulder Experiments Scrapbook," (SO 006 206), which describes the seven month project that culminated in a large community environmental fair. This final report describes the project, from the initial funding by the Office of Environmental Education through recruiting of staff, orientation, planning the projects, tying up loose ends, and evaluation. A Fiscal Report is included, as well as logs kept by the students and professional staff giving an idea of the progress made during the year. Eleven appendices are included. (OPH)

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Final Report

SADMESS

Student Assisted Development of Materials for Environmental and Social Studies

Project No. 1-0793
Grant No. OEG-0-71-4577 (508)

Karen B. Wiley
Irving Morrissett
Suzanne Wiggins Helburn
Regina Gray

Publication # 153
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302

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1.0 INTRODUCTION

In June of 1971, the Social Science Education Consortium, Inc. (SSEC), received word via the Denver Post and then a phone call from Paul Cromwell of the U. S. Office of Education, that it had been awarded a $50,000 grant for a project employing high school students to develop curriculum materials emphasizing the social science aspects of environmental education. The award came as an almost complete surprise, since we had not expected to weather the intense competition for grant monies.

Over a year later, at the end of our second grant extension, in December 1972, the project remains as much of a surprise as it was at the beginning. As we write the final report on SADMESS--the facetious acronym we gave the project, meaning Student Assisted Development of Materials for Environmental and Social Studies--we continue to wonder happily at the way the project developed into something quite different from what we had initially planned and how we all learned and grew from our encounters with the unexpected.

1.1 Objectives

Our original objective was to develop four to six short activities dealing with the social aspects of environmental problems--an area we believed to be much neglected in existing curriculum materials--using a unique development model employing high school students, the targets of such materials, as developers. We hoped to come out with not only readily disseminatable materials, but also a workable model for cooperation among adults and young people in creating curriculum. (See Appendix A for a copy of the original proposal describing our objectives and plans for achieving them.)

We can say with much satisfaction that we reached our goals. We now have available two books, Sunshine Unfolding and Boulder Experiments Scrapbook, and this report, describing the process we went through in developing these products. (See Appendix H for a copy of Sunshine Unfolding and Appendix G for a copy of Boulder Experiments Scrapbook. Both of these books may be purchased separately at cost from the SSEC, at the address given on the title page of this report. Sunshine Unfolding costs $4.95 and Boulder Experiments Scrapbook is available at cost. All orders must be prepaid or accompanied by an official institutional purchase order.) However, the precise shape of the goals themselves, as well as the manner in which they were reached, underwent many radical changes from our original conception as described in the proposal.

The products themselves were fewer in number than originally planned. We produced only two "activities" rather than the four to six mentioned in the proposal. However, the activities proved to be much longer and much more complex than initially envisioned. Sunshine Unfolding is a full-length book about philosophical/religious approaches to man/environment relationships conceived, researched, written, edited, designed, and pasted up by students participating in the project. And the Boulder Experiments Scrapbook describes a seven-month project which culminated in a large community environmental fair. Both of these "activities" are comprised of many smaller sub-activities, equal to much more than the originally promised four to six two-week activities. Thus, by allowing ourselves to shift our focus to a different sort of endeavor from that originally projected, we managed to deliver much more than we promised.

The processes through which these products were developed turned out to be much more chaotic and untidy than the original proposal, with its tight-knit, structured tone, would indicate. The professional staff found that if it were truly to honor its stated commitment to "full-fledged student participation" in decision-making, it had to take an even less directive role than anticipated. The students selected turned out to be quite self directed, and the professional staff found itself sometimes hanging on by its fingernails trying to keep from being relegated to the status of hand-wringing bystanders. Frequently, also, the professional staff found out that it was as much at a loss as the students in knowing how to proceed. Thus, much of our time was spent in (1) working out problems of roles and communications, and (2) mutual groping for solutions to unexpected (or sometimes expected, but still baffling) problems. In the process of working out human relations, organizational, and technical problems, we sometimes nearly lost sight of the product entirely; but there seemed to be enough commitment to "product" on most everyone's part most of the time to keep ourselves from descending into a purely narcissistic, introspective process. Thus, we managed to reap the benefits of self-examination as well as produce something to pass on to others.

The learning that occurred as a result of the project, both on the part of the students and on the part of the professional staff, was not quite what we had expected, either. Though we had not unduly emphasized in the proposal a specific objective of "learning (technical) environmental content," many of us had simply assumed that such learning would be the overwhelming focus of our attention during the year. At our "debriefing" retreat at the end of the year, someone commented, "I really learned an awful lot about politics, and communicating with people, and organizing my work; but, you know something?--I hardly learned anything about environmental problems! At least not anything organized." We all turned, with our mouths open, and said, "You know, you're right!" In truth, of course, all of us did pick up a lot of information, by "osmosis" as it were, for one simply can't work intensively with as many environmentally concerned people in the community for a year as we did without learning something. And, the Sunshine Unfolding people probably acquired more in the way of "solid content" than the Boulder Experiments group. But the Boulder Experiments people learned a tremendous amount about the political and motivational problems involved in trying to get people interested and active in solving environmental problems. And that, after all, is "emphasizing the social aspects of environmental problems."

1.2 Overview of the Report

In the pages that follow, we attempt to give the reader a concise description of the events of the year and the achievements and failures of our effort.

Section 2.0, "Description of Program," is a "travelogue" depicting in chronological order (more or less) the adventures of the year. It is divided into five sections: 2.1 Preparations (July-August 1971); 2.2 Recruiting (September 1971); 2.3 Orientation and False Starts (October-November 1971); 2.4 Two Projects (November 1971-June 1972; and 2.5 Looking Backward: Debriefing the Year and Tying Up the Loose Ends (June-December 1972).

Section 3.0, "Evaluation," reviews the original objectives of the project and discusses whether they were met or not, drawing heavily on the transcriptions of the tapes from our June 1972 debriefing retreat to the mountains.

Section 4.0, "Fiscal Report," contains the budgetary information required by the U. S. Office of Education as part of every project final report.

The last section, 5.0, contains appendices that illustrate and elaborate on the materials in sections 2.0 and 3.0 of this report. Two appendices may be of special interest to the reader:

Appendix J contains a script for the SADMESS Slide Show, which includes a variety of scenes from the SADMESS year. This slide show may be of some use to anyone wishing to make a presentation about SADMESS; for instance, to a school board interested in instituting a student involvement project or a group of students interested in starting their own project. The slide show may be purchased separately at cost from the SSEC.

Appendix K contains all the "logs" kept by students and professional staff during the year--or at least all the logs we managed to find in sorting out our piles of accumulated junk at the end of the year. Our continuity in keeping up our diaries left something to be desired. Further, when we all contributed our scraps and bits of paper to the "pot" at the end of the year, we found it rather difficult to sort it all out, because of our failures to identify authorship, date of writing, and so forth. Thus, the logs sometimes give a rather discombobulated picture of the year, but we think we've got them in good enough order to reflect, in general terms, our progress. And we certainly think they include some fascinating perceptions and insights worth sharing with the readers of this final report.

2.0 DESCRIPTION OF PROGRAM

SADMESS began officially on August 15, 1971, though for a month and a half prior to that much ground work was being laid. It officially ended on June 30, 1972, though a good amount of work continued beyond that date with two grant extensions taking the project through December 1972.

This section of the final report describes the events that took place during the year and a half of the project's duration. In section 2.1, Preparation, we describe the groundwork that was laid during July, August, and September before the project actually "got off the ground"--that is, before the students were selected and began work.

Section 2.2, Recruiting, describes the procedures and criteria used by the professional staff with the help of personnel from the Boulder Valley Public Schools in making the project known to students, conducting the application process, and selecting the students to participate. The selection of the teacher consultants, done by the students and professional staff together, is also described in this section.

Section 2.3, Orientation and False Starts, deals with the first two months of student involvement in the project. It focuses on the orientation process, planned by the professional staff for the first two weeks of October, and the following weeks of trying to discover what we *really* wanted to spend the year doing.

Section 2.4, Two Projects, describes the two projects on which the project participants finally settled, the "schoolbook" (*Sunshine*

Unfolding) and Boulder Experiments. Relatively less space is devoted to Boulder Experiments, since the events leading up to and following the fair are thoroughly discussed in the Boulder Experiments Scrapbook (see Appendix G). The process of developing Sunshine Unfolding is dealt with in greater detail, since it is not covered in the book itself.

Looking Backward, Section 2.5, focuses on the retreat to the mountains, held in June 1972, during which we discussed the events of the year and attempted to evaluate their worth. It also deals with the activities of July through December in finishing up the books and this report.

2.1 Preparations (July-August 1971)

Our initial tasks, once the budget for the project had been negotiated with the U. S. Office of Education were five: (1) to hire a secretary and an additional professional staff member; (2) to firm up cooperative arrangements with the Boulder Valley Public Schools; (3) to develop specific plans for student recruitment; (4) to set up an Advisory Board; and (5) to develop plans for the first two weeks of orientation for the students.

2.11 Staffing. Most of the staff for the project, other than the students and consultants, had been determined at the time of writing the proposal. However, no secretary had been appointed at that time, and one of the originally designated professional staff members, James O. Hodges, had accepted another position in the meantime. Hence, our first task was to fill out the staff before making specific plans for the project. We asked Connie Maupin, a regular SSEC secretary, to take on the secretarial duties for the project. To replace Hodges, we advertised the opening and interviewed a number of applicants, from which we finally chose Regina Gray because of her strong background in teaching science and developing science curricula at the secondary level. (See Appendix L for a list of staff members.)

2.12 Arrangements with Boulder Valley Public Schools. As soon as we learned of the grant award, we recontacted Richard Telfer, our original contact with the BVPS on the proposed project. In a series of meetings with Telfer and several other administrators in the district, we worked out plans for recruitment of BVPS students and for giving course credit for their work.

It was decided that high school students from all six high schools in the district would be informed of the opportunity via announcements and fliers during the first week of classes. Permission was obtained for making the announcements and distributing and collecting the fliers and application forms through the principals' offices of each school. (Further discussion of recruitment and selection procedures can be found in section 2.2 of this report.)

The district agreed, contingent upon the approval of the principals whose students were to be involved, to grant social studies course credit for a portion of the work performed on the project. The remainder of the work was to be compensated by payment. District policy would not permit both monetary and course credit compensation for the same hours of work. Because of this arrangement, we found ourselves with more money in our budget than we had needed, since our original estimates for student salaries had been calculated on the expectation that we would pay for all hours worked. We had enough left over, in fact, to pay two additional students. Thus, we expanded our student contingent to eight, rather than the original six students.

(Documents pertaining to arrangements made with BVPS during the preparatory stages of the project can be found in Appendix B.)

2.13 Recruitment plans. One of our major concerns in this early part of the project was with the student staff members. What kinds of students would contribute most to the goals of the project? What sorts of students would get the most out of such a project? What kinds of people could we work best with ourselves? What sorts of characteristics should we look for and how could we look for them?

We developed a description of the kind of team we had in mind--one that was made up of a variety of students, each with unique skills and interests valuable to the project, but not necessarily all team members having all abilities considered desirable for the project. We were also very interested in getting students who, for one reason or another, were disillusioned with their school setting, but who also were very much interested in education. (A copy of our team description can be found in Appendix C.)

After determining the characteristics for which we were searching in our student team, we developed an "advertising" program of sorts. This included writing announcements for the school PA system, notices for the newspapers, and a three-page flier to be handed out to students in the schools. The flier (a copy is included in Appendix C) contained a "teaser," a description of the project, information about the criteria for selection, and information about application procedures.

The final item to be developed was the application form. To do this, we had to figure out how to get information which would tell us whether the applicants met our criteria. We used a combination of approaches, asking applicants to rate themselves on their interests and capabilities and to write a brief essay describing what they felt they could contribute to the project. We also asked for five references--two teachers, one non-school adult, one peer, and one "other." However, we relied most heavily on the students' own self-ratings and essays.

We set up a schedule for recruitment, which we, of course, fell behind--an omen for the future of the project, perhaps. During the first week of school, announcements were to be made and the fliers and applications were to be handed out. Then the selection process was to have been accomplished and the students selected by mid-September. However, as it is reported in section 2.2 on Recruitment, we were delayed approximately two weeks.

2.14 Establishment of Advisory Board. Shortly after the official beginning of the project, we contacted a number of local people associated with the University and curriculum development projects to ask them to serve on the SADMESS Advisory Board. The purpose of the Advisory Board was to help the project staff develop ideas and strategies for the activities, to suggest procedures for the development process, and to give constructive but critical feedback as the project progressed. The professional staff also anticipated that the experience of high school students and top-notch social scientists and educators working together would be stimulating both to the students and to the scholars. The members of the Advisory Board included five faculty members of the University of Colorado: Gilbert F. White, Director of the Institute of Behavioral Sciences; David Hawkins, Director of the Mountain View Center for Environmental Education; Abraham Flexer, Associate Professor of Molecular, Cellular, and Developmental Biology; Curtis Johnson, Chairman of the Department of Chemical Engineering; and Nicholas Helburn, Chairman of the Department of Geography. Two of the Board were associated with curriculum development projects in Boulder: Manert Kennedy, Associate Director of the Biological Sciences Curriculum Study, and Robert Samples, Director of the Environmental Studies project.

One meeting of the Advisory Board was held before the students were selected. On September 13, the professional staff and Board members met for a luncheon. The agenda for the meeting included an overview of the project, including a report on the plans as they had shaped up to date; discussion of the objectives of environmental education in general and how they apply to the project; discussion of the ways in which the Advisory Board members could participate; and a special presentation by Richard Rocchio on the newly funded Colorado Environmental Education Master Planning Project.

2.15 Development of Orientation Plans. In August we began developing plans for orienting the students during their first few weeks on the job. We decided that a major focus for the orientation should be on "group building"--putting the cross-age team of professionals and students on a smooth working basis and developing understanding and skills in group dynamics to serve us throughout the coming year's efforts. We contacted Richard Rocchio, of the Center for Research and Education and the Colorado Environmental Education Master Plan, to help us, since he had extensive background in group training. Working with Rocchio, we developed a two-week schedule that included both substantive tasks dealing with developing our plans for the year and group process tasks to train us in the skills of communicating, cooperating, and group introspection to help in furthering the accomplishment of the substantive tasks. A calendar of activities for the first two weeks is included in

Appendix C, and the orientation period is discussed in greater detail in section 2.3.

2.2 Recruitment (September 1971)

The recruitment phase of SADMESS began the last week in August and continued through September. The steps involved were (1) preparation of recruiting materials, (2) "advertising" the program, (3) the application process, and (4) selection of students.

2.21 Preparation of materials.

During the last week in August we put together the materials to be used in the recruiting and selection process. These included announcements to be read over the PA system during morning announcements in the six Boulder high schools; radio and newspaper releases; "WANTED: Students to Develop Curriculum Materials on the Social Aspects of Environmental Problems," a flier mimeographed on wild pink paper, describing the project and the application procedures; and application forms. (Copies of all these items can be found in Appendix C.) In addition, we arranged for space and time in each of the schools for a staff member to meet with interested students and further explain the project.

2.22 "Advertising."

Blurbs for the PA announcements, copies of the fliers, and application forms were delivered to the principals' offices of all six schools by staff members immediately before school opened the first week in September. The press releases were also sent to local newspapers. Unfortunately, because of the hustle and bustle of the opening of school, in some schools the PA announcements did not get made, while in others they "got lost" in the streams of words coming over the PA for the first few days. The meetings with staff members at the schools, however, did evoke some further interest and word passed to a limited number by the grapevine about the project. Additionally, Phillip Cohen, the social studies consultant for BVPS, had passed the information on to a number of the social studies teachers and to the counselors, some of whom mentioned the project to their classes or individual students.

2.23 Application process. The application process involved filling out the form, returning it, and being interviewed in small groups.

As can be seen by the copy in Appendix C, the application form was fairly lengthy and required a certain amount of persistence to complete. This was intentional--a first step in the "weeding out" process, to test commitment. The information we wished to obtain pertained primarily to the students' own judgments about themselves. We asked for them to rate themselves on their abilities and on their personal qualities and interests. In the list of skills and interests on which they were asked to rate themselves, we included a wide variety of things that we anticipated would be of value to the project. Our hope was to find a group of students who, among them, shared all the desiderata. In addition to the self-ratings, we asked for information about school performance and interests. This turned out to be of little interest and help in making the selections, except that it did help us steer clear of forming a team of all straight-A students. Because we felt it important to have at least some skilled writers on the team, we also asked for a 250-word essay on what the applicants thought they could contribute to the project. The ideas set forth in the essays were also helpful measures of interest and thoughtfulness, no matter how poorly written. Finally, we asked for five references. We did contact references--including peer references--in the later stages of the selection process, and these were in some cases fairly important to our decisions.

The students finally selected later voiced the opinion that self-ratings are quite difficult--especially when one is asked to "brag," if you will, about one's strong points. The topic of giving information about oneself without bragging or being overly modest provided us with revealing discussion material, especially when combined with the later experience of selecting the teacher consultants, in which the students were "on the other side of the fence," wanting to know both the strengths and weaknesses of the applicants.

Because of the mix-ups and delays involved in advertising the program, we postponed the original application deadline of September 14th by a few days. Twenty-four applications in all were finally turned in, a much smaller number than we had expected. One student attributed the low interest to an "all-pervading apathy about everything, including environment," while others thought that the advertising had left something to be desired, and that the first weeks of school were especially hard times to get people's attention. Another factor weighing against the expected interest was probably the difficulties involved in "commuting" from outlying schools in the district. We received no applications from Nederland, the farthest removed from the SSEC offices; only one application from Louisville; none from Lafayette; and only one from Broomfield. The rest were from Boulder and Fairview High Schools. In addition, only one application was received from a sophomore, none from juniors, and the remaining 23 from seniors. Perhaps the idea of an out-of-school project requiring a great deal of initiative was a bit too overwhelming to the lower classmen, or perhaps sophomores and juniors were more concerned with getting required credits out of the way early in their school careers. (On the other hand, it was suggested that many seniors would not have been able to take part because of the problems of finishing up their required credits in order to graduate on schedule.)

Once all applications were received the professional staff revved up in high gear to expedite the selection procedure so as to have all student staff members on board by the end of September. Several small group interviews were arranged before proceeding with any sorting out of the written applications. We found the group interview approach very exciting, and the interactions during these interviews provided us with many important clues about the communications skills and potential compatibility of the students. The questions asked during the interviews were designed to open up group discussion and let the students talk and interact among themselves. They were of a very general variety, such as "What's wrong and right with education?" and "What's environmental education?" Following each group interview the staff, without discussion, jotted down their observations and comments on the students. Most of the students were, of course, rather nervous when they arrived at the interviews, but appeared to loosen up once the group discussions got going--much more so than one would expect in an individual interview. However, there were a few students whom we felt we did not get a "feel" for during the group interviews. These were asked to return for individual interviews.

After the interviews, we did an initial sort of the applications and eliminated a few students on the basis of the application and interview information. Then, we divided up the applications and phoned as many references as we could reach in one work day and evening. This was followed by an additional sort, in which we worked the number down to about ten applicants. At that point we each individually sorted the remaining applications into rank order of preference and then compared our rankings. A few were obviously "yes" at this point; however, we decided that in view of our wish to put together a well balanced team, we should look at the group of applicants as a whole and play around with various possible combinations. Therefore, we drew up a huge chart in which we included student self-ratings on skills and interests, our own ratings of their essays, our own ratings of their interviews, and ratings from references. Then, we sat back and stared at the data for a very long time. Through alternating discussion, jotting down of various combinations, and reflection, we finally arrived at a group of six. From there, we compared the advantages and disadvantages of including each of the remaining four, and finally arrived at a choice--one of the most difficult of the year.

The students who were selected were called immediately to inform them of their selection and to clarify any details that might prevent their joining the project for the year. When it was established that all eight would and could participate, we then called the other applicants and informed them of our decision, expressing our regret that we couldn't hire everyone and giving them some indication of the reasons they were not selected. Letters to relevant officials in BVPS were prepared, informing them of the students who were selected. Appointment letters were also prepared for the students, delineating the conditions of employment, i.e., hours, salary, course credit arrangements, sick leave, and vacation policy. A copy of the letter sent to the principals announcing the students who were chosen and a copy of a student appointment letter may be found in Appendix C.)

Recruitment and selection of teacher consultants was not begun until the students had been selected and the first two weeks of orientation were over. This was so the students could participate in their selection, and so the students would have an idea, however vague, of the kinds of consultants we would need. The job of teacher consultant was to work on the project with the students two afternoons a month on a released-time basis (for which the project was to reimburse BVPS) to act as liaison with the school administration and faculties, and to advise the students on matters pertaining to coordination with the schools and problems of classroom teaching and management.

Teachers were informed of the openings by announcements sent to all the schools and also through personal contacts by the students. Interview teams of three students and one professional staff member interviewed the teachers individually; results of the interviews were compared; and two teachers--one elementary and one secondary--were chosen. The students rather got a "kick" out of their new-found sense of power in interviewing the teachers, although once or twice they "ganged up" on them a bit harshly (or so some of the students opined). They also were rather surprised at the personal and group difficulties encountered when it came time to select from among the applicants only two, with whom they would have to work for the remainder of the year. This dilemma opened up the opportunity for us to discuss the problems of interviewing and hiring from the point of view of both the interviewee and the interviewer, both recently experienced by the students. The teachers chosen were Rita Majors of Fairview High School and Pat Jones, University Hill Elementary.

2.3 Orientation and False Starts (October-November 1971)

The students began work on the afternoon of Tuesday, September 28. Monday afternoon had been spent at the schools, working out class schedule changes and other details, and in the office, planning furniture arrangements and just getting acquainted with one another.

The first two weeks of October were spent in "orientation," which included a variety of activities to help the students get acquainted with each other, with the professional staff members on the project, with the staff of SSEC and the ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/ChESS), and with the kinds of tasks that lay before them. The orientation culminated with a two-day retreat to a cabin in the mountains. Following the retreat we dived into trying to focus on some specific curriculum development projects for the year, but as reported below, we spent quite a while (a month and a half) trying to find our way among the wide range of possibilities.

2.31 Orientation. The two weeks of orientation focused on two objectives:

1) examining the "substance" of the year's project, i.e., learning about differing models of curriculum development and their possible applications to our task of developing environmental education materials; and

2) learning about group dynamics and the techniques for facilitating our group's communications and interactions.

To accomplish these, we drew primarily on the professional staff and on selected consultants.

The calendar for the first two weeks included:

September 28: Nitty-gritty (filling out W-4 forms, making arrangements for retreat, etc.)

Discussion on "What is environmental education?" Using a word classification exercise based on words related to education, teaching, and learning, we got this off the ground with a discussion of each person's perception of what education in general is and should be.

September 29: Discussion of "What are our goals and objectives for the year?", using techniques such as brainstorming, individual polling, and posting.

Debriefing and introduction of group analysis tools by Rick Rocchio. This was our introduction to group "processing." In this discussion we focused on the kinds of interactions that had gone on during the preceding discussion, rather than the substance of the discussion itself. The kinds of questions we dealt with are shown in the readings and forms in Appendix D, which Rocchio furnished us. Our objective during these two weeks of group process training with Rocchio was to become adept enough at facilitative techniques to be able to continue them on our own and eventually integrate them with the substance of our group communications, rather than having to stop in the midst of a discussion to "process" our interpersonal interactions.

September 30: Continuation of discussion of our goals and objectives.

Further work on group process with Rocchio.

October 1: Luncheon party with SSEC and ERIC/ChESS staff: What're SSEC and ERIC?

Talk with Irving Morrissett, SSEC Executive Director and Co-director of SADMESS.

Discussion with Howard Mehlinger, developer of the American Political Behavior materials. Mehlinger, from Indiana University, was in town on Consortium business and agreed to take out time to talk with the students. This was the students' first opportunity to "consult." Mehlinger was a good "practice" consultant, because he was very adept at helping us figure out what our questions were, as well as suggesting ranges of alternatives rather than single "answers." We did not plan out a strategy for using him as a consultant beforehand (that is, draw up a list of questions to ask him), but rather decided to "play it by ear" to see how "skilled" we already were at using consultants.

October 4: Discussion with Rocchio of group process goals and objectives for the year.

Discussion with Robert Fox, developer of Social Science Laboratory Units, from University of Michigan, on group process and on curriculum development. Our second adventure into using consultants was particularly interesting because Fox was not only a curriculum developer, but had developed curriculum based on the use of group process techniques. Thus we could combine our discussion of substance and process with him.

October 5: Discussion of "Curriculum development--how?"

Planning of questions to pose during visits to Biological Sciences Curriculum Study (BSCS) and to Environmental Studies (ES) projects. These are two projects in Boulder that have a national audience and are funded by the National Science Foundation. We planned to see their operations and discuss their procedures for curriculum development.

October 6: Visit to BSCS. We found that BSCS had a very structured development approach. Their phase-by-phase materials development plan is illustrated in the flow chart they gave us, which can be found in Appendix D.

October 7: Visit to ES. The ES approach to curriculum materials development, as well as the kinds of materials they produced, was radically different from the BSCS approach and products. ES hardly had any visible "plan" at all and took a much more free-wheeling approach. Their materials were mainly aimed at motivating kids and stimulating open-ended inquiry and creativity, while the BSCS materials dealt more with content and emphasized a more structured inquiry strategy.

October 8: Discussion of "What are the curriculum development models we might use, or do we want to follow any?" Drawing on what we had learned from Mehlinger and Fox and our visits to BSCS and ES, we attempted to sketch out what approach we wanted to use. We decided that it would be partly dependent on the kinds of materials we decided to develop, but in general most of us tended toward a preference for the less structured approach. The feeling was strongly expressed that we didn't want to follow anybody else's model exactly; a major objective of the group was to come out with something very new and creative that fit in with the unusual nature of the curriculum development group, i.e., that it included real, live students.

Brief processing with Rocchio.

Planning agenda for retreat.

October 9 and 10:

Retreat to the mountains.

2.32 Retreat. We planned a two-day weekend retreat to a mountain cabin as the "finale" for the orientation. During the retreat we were to focus on both of the objectives we had set for the two-week orientation: substance and process. Rocchio attended to help us with processing. The purpose of the retreat was to get us all away from distractions so that we could concentrate on pulling together what we'd learned about the project and each other during the previous two weeks and work out any big problems that seemed to hold potential for disrupting our work during the next few months.

Rocchio had suggested that we plan to discuss a number of substantive items during the retreat and then he would break in from time to time to help us look at the interaction processes taking place during these discussions.

We drew up a list of possible substantive agenda topics before we left, but decided not to set up the specific agenda till we got to the cabin. The suggested agenda topics were:

1) Analysis of tasks (how to divide the labor during the forthcoming year)
2) Schedule for the forthcoming year
3) Things we need to know more about and how to find out about them
4) How shall we describe and evaluate the total project?
5) Selecting ideas to be developed into activities
6) Develop several lists of "tools" we can utilize in various aspects of our work
7) Plan next two (or so) weeks in some detail
8) How to use a consultant (using Rocchio as an environmental consultant for practice)

Some staff members put together "suggestion sheets" detailing some of the things we could talk about related to the first three suggested agenda items. These are included in Appendix D.

We eventually managed to discuss the schedule, both long-term and immediate; the division of labor; and things we need to know more about. We only briefly touched on the other items, and we decided to put off selection of ideas to be developed into activities until the following week. We didn't come out with any definite decisions on any of the questions (except for deciding on the schedule for the next few days) mainly because we discovered there were some rather marked differences of opinion within the group. We spent most of our time trying to explore these differences and work with techniques for clarifying the differences and facilitating their resolution.

Perhaps the major "issue" on which the retreat centered was overcoming a sort of distrust between the professional staff and the students. This was a problem which continued throughout the year and on which we only made gradual, painstaking progress. Essentially, the issue involved several specific problems:

1) The students (that is, most of them) did not really believe that the professional staff was really going to let them take a full-fledged role in decision-making--they were on their guard that the adults were going to try to "force" them to do something they weren't interested in.
2) The students reacted to this belief by what might perhaps be called "overasserting" their rights.
3) Some of the students were very antagonistic toward anything that even vaguely hinted of "structure"--they wanted to just "let things flow."
4) The professional staff were convinced that there was a great need for "organization" in order to accomplish both the product and the learning objectives of the project.
5) The professional staff probably pushed inordinately hard to "sell" this idea in words, rather than drawing on the experience (or developing the experience) of the students to demonstrate the alleged importance of at least some amount of "structure."
6) The professional staff didn't help matters by lapsing frequently into professional gobbledegook which bewildered and frustrated the students.
7) The adults were somewhat overly upset by the fact that most

of the students still didn't seem to "trust" them and wouldn't take their advice (after they'd known them two whole weeks!).

We attempted to arrive at some model for making decisions in our group that would give everyone an adequate sense of power and still enable us to actually make the choices we would inevitably have to make during the year and to carry them through. The best we could come up with at this point was a sort of vague consensus model. We did not, however, operate very well or consistently in this mode and develop it to the fine-honed tool à la Quakers. We continued to lurch about from one decision-making model to another throughout the year, and never did succeed in developing any one procedure very well. On the other hand, somehow we did manage to get decisions made and the work done (well, most of it). You couldn't exactly call our decision-making model the "let it flow" model; it was more like punting in a football game.

(Documents relating to the retreat may be found in Appendix D.)

2.32 False Starts. For a month following the retreat we wandered through a number of ups and downs trying to find some firm ground on which to plant our feet. Immediately following the retreat there was some follow-up discussion of whether we should dive right into developing curriculum activities or do some further background work first. Irving's memo of October 10 and 11 (see Appendix E) and Karen's log for October 11 (see Appendix K) indicate the nature of this question. The preferences of the group leaned toward getting our fingers into the nitty-gritty of developing activities, at least as a dry run, so that we'd know what we were up against. Therefore, after talking a bit about some of the problems that had surfaced during the retreat, we held a brainstorming session to generate ideas for possible activities to be developed. Dan and Karen's memo of October 13 (see Appendix E) summarizes the discussion and brainstorming session. The sheet labeled "SADMESS, October 12: Brainstorming" in Appendix E lists the ideas we came up with and our prioritization of them. We also decided that it would help move things along if we would modify our consensus format to include a "steering committee," which would be rotating and would be responsible for looking ahead and bringing important matters to the attention of the group when it was necessary to make decisions. The steering committee idea lasted for about a month.

Once we had brainstormed and prioritized a bunch of ideas, we divided into two groups based on who was interested in which ideas we'd categorized as "3 = Good Possibilities." These sub-groups then proceeded to try to define their topics more clearly and develop plans for creating learning activities focused on the topics.

One group, which called itself "Madison Avenue," was interested in exploring the relationships between advertising and environmental problems. Two reports on their progress are included in Appendix E.

The other sub-group had a wider mixture of topic interests. Individuals in it were variously interested in items 7, 11, and 14 on the "Good Possibilities" list: "Levels of consciousness and how they affect decision making"; "Psychological and social effects of overcrowding"; and "Decision-making under pressure." The tie among these ideas, of course, was decision-making. Two reports in Appendix E labeled "SADMESS - 7/11/74 Activity" indicate the nature of this sub-group's discussions.

These ideas were presented to the SADMESS Board of Advisers at their first meeting with the students on October 22 and the board members were asked for their feedback on the ideas and suggestions of resources to use in developing the ideas. The report on this meeting includes information on the two activities as well as a report on the activities of orientation week and can be found in Appendix E.

We continued to work on developing these ideas following the Board meeting, but it became more and more obvious that something less than wild enthusiasm reigned. The students were not satisfied with the topics chosen and were having trouble doing the kind of background research that would be necessary to develop activities with solid content. The sub-groups finally crumbled at the end of October, and two new groups were formed: one group pulled together around the idea of doing a "schoolbook" of environmental education resources, somewhat along the lines of the Whole Earth Catalog. The other group was drawn together around the idea that they hadn't yet hit on something definite they wanted to do, like the Schoolbook group.

The Schoolbook group proceeded to dig into their idea quite readily. Their development is described in greater detail in section 2.4. As we came to realize, the students attracted to developing a book were the "intellectuals" of the SADMESS project. The other students were of the "activist" orientation, and the project on which they finally settled--the Boulder Experiments fair--was in line with their inclinations. However, it took the activists a bit longer to figure out what their real interests were.

It was not until November 10 that they hit upon the idea of a community environmental fair. On that day, Bryce Hamilton from the Colorado Environmental Education Master Plan project visited us. He mentioned that, when he was living in Washington, D.C., he once attended a street fair in which a downtown street was turned into a mall for a day, blocked off to traffic so that pedestrians and bicyclers could wander about in the festive atmosphere. Very slowly at first our eyes began to light up and, one by one, we each started tentatively to imagine "pieces" of a fair in Boulder, with the downtown streets closed, balloons and clowns, environmental exhibits, and so on. The momentum of ideas grew and grew. By the end of the day, we thought we had probably found "our project." But, wanting to be sure, we decided to sleep on it and see if it still excited us the following day.

It did.

We won't report on what followed in the growth of Boulder Experiments in this report, since, after the fair was over we put together a book about how we'd done it. That's included as Appendix G to this report. (A brief description of the day of the Boulder Experiments idea can be found in Karen's log for November 10, in Appendix K.)

2.4 Two Projects (November 1971-September 1972)

As mentioned above, by the middle of November 1971 the group had divided into two subgroups to work on two ambitious projects which filled the remainder of the year--and then some. One was the Boulder Experiments project--putting on a huge community environmental fair in downtown Boulder during May 1972. Since the Boulder Experiments project is described in the book included as Appendix G, we will not take up space here reporting on it. Instead, we will focus on the development of Sunshine Unfolding, the book produced by the second sub-group of SADMESS.

It should be pointed out that the two sub-groups did not become isolated from one another once they had chosen their foci, though there was a goodly amount of independence of development. We periodically had full-group meetings for each sub-group to report to the other on what they were doing and get suggestions from the other group. Also, we all worked in rather close quarters, so there was much informal exchange. As the Boulder Experiments fair drew near, the BE group asked for and received much help from the Schoolbookers. In fact, the work on the Schoolbook came to a near halt for the last two weeks before the fair. Finally, along about March, one member of each group decided she'd rather be working in the other group, so roles were exchanged and each group benefited from a new spurt of energy from the new members.

As mentioned in the previous section, the Schoolbook group was homed in on their focus by the end of October. During November and early December, they moved quite far in their planning and initial research. A number of documents in Appendix F depict the development of their initial ideas. One, dated November 1 and entitled "Introduction to Our Human Environment," shows the initial outline for the book. At that time the Schoolbookers planned six chapters: "Philosophical Approaches to Environmental Problems," "Man and Technology," "Living in the Belly of a Monster," "Social Conscience/consciousness," "Political Mechanisms," and "Doomsday Syndrome." A second document, "The Schoolbook (make your own title)," elaborates this first outline.

The students decided to start work on the first chapter, about philosophical approaches to environmental problems, as a group rather than dividing the chapters among them. They felt that working together on this "first round" would help them find their way; later, when they finished the first chapter and had a better idea of how to go about writing a book, they expected to divide up the succeeding chapters.

They began by developing an outline for the first chapter of the book. This can be found in Appendix F and is entitled "Outline for Schoolbook." Next they ginned up a list of resource people who could give them ideas, information, and leads to additional resources (books, films, other people, etc.). In late November and early December all four members of the sub-group visited these people. Then they divided up the philosophies and religions to be dealt with in the chapter and individually began following up on the resources suggested in the interviews, using the "Guide for Reviewing Materials for the Schoolbook" to guide their reading and media reviews. (The guide is included in Appendix F.) By Christmas, they had done a substantial amount of work on the first chapter, though they were still far from beginning to put together a complete first draft of it. They wrote a report on their progress for Irving on December 19. It is included in Appendix F.

Over Christmas vacation and through most of January, progress on the chapter was rather slow, since members of the group were in and out of the office on vacations and then came semester exams. But by the end of January, work picked up.

Near the end of January, the group began to worry a bit about the fact that they still hadn't finished the first chapter and they still had five more to go. In February several meetings were held for discussing how to move along to subsequent chapters. Some of the students tried to make a beginning on other chapters, while others stayed on the first chapter to finish it up. But this new division of labor did not seem to work well--those trying to finish up the first chapter had difficulties in pulling together the work of the others, those working on the new chapters were having trouble going it alone, and all felt the constant tension between the wish to do a "bang up" job on the first chapter, in which they'd already invested so much time and energy and thought, and the desire to move into new areas and put out a book including the full outline that they'd planned. Additional disruption was caused about this time by one of the Schoolbook members trading with one of the Boulder Experiments members, though, as it turned out, this was a healthy disruption. Nevertheless, it did require some reorientation and "initiation" which took additional time.

The Schoolbookers finally decided that they preferred to sacrifice their original ambitions for a six chapter book and instead concentrate on doing as good a job as possible on the one chapter. Once they had made this determination, work moved along quite smoothly again. They continued their researches; began writing up their findings; held frequent discussions about style, format, tone, and organization of the chapter, now become a book itself; and began searching for illustrations and quotable quotes to dress up the book. By the end of April they had a very rough draft of the book.

Unfortunately, they were interrupted once again. As the Boulder Experiments fair approached, they were asked more and more frequently to drop what they were doing for an hour, a day, a week and help out with the care and feeding of the "octopus" that the BE group had created. It was with some reluctance that the Schoolbookers turned from their chosen project, and as soon as the fair was over they gladly returned to the Schoolbook.

Since the fair took place in the middle of May, once it was over the pressure was really on the Schoolbook people to bring their year's efforts to completion. Immediately after the fair (May 18) they prepared a schedule of tasks which would enable them, if they met the deadlines, to finish work on the book by the end of June. (See Appendix F.) It was an impossible job! So, they then began to play around with the budget and with the students' summer plans to see if we could stretch the Schoolbook schedule out a bit. The calendar was revised on May 22 to provide for a more realistic pace. During the last week of May they were to get feedback from the "content validators"--people who were experts in the various areas they had covered in the book. Then they would take time out to attend the SSEC's "Roundup," an annual meeting attended by social scientists and educators from all over the country. Right after the Roundup, they would work on revisions and editing, based on the feedback from the content validators and they would write a "natural history" of the Schoolbook (telling how they developed the book).
The revision and editing work was to be done, at least for the first go-round, with the group as a whole and several professional staff members. They would read each section aloud in the group, making corrections, suggestions, and so forth as they read. In this way, everyone could learn a little about the kinds of things to look out for (typos, grammatical and punctuation errors, confusing syntax or word choices, poor organization, and so forth) and ways of remedying problems of written expression. During the group editing sessions, a style sheet was developed to guide future rewriting and editing by individuals. The natural history was to be brainstormed by the full group, and then two members would take responsibility for writing it up for review by everyone.

The demands of finishing the book, however, crowded out this second-priority task, and thus the thing never got written.

By the end of June it was planned that the group would be ready to work out the introductory portion of the book, telling readers what's in the book and how to use it, and also they would begin working with Robert Samples and Robert Wohlford of the Environmental Studies project on book design. During July they would do the final editing on the manuscript, finish picking and drawing illustrations, get bids from printers, and have the final printer's copy of the manuscript typed. In August, work would be minimal--the manuscript would go to the printer for typesetting, galleys proofed and corrected, and the students would work with Samples and Wohlford on the final paste-up. The deadline for getting the paste-up to the printer was set at August 30.

For the most part, the Schoolbookers followed the schedule, only leaving out a few scheduled items, such as the writing of the "natural history." They did get behind schedule, however, in August, mainly due to the slowness of the typesetter in returning the galleys and repros at the times agreed. Thus, the final paste-up was delayed into September, and two of the students who still remained in town spent many hours with exacto knives, glue, and rulers in hand, putting the repro copy together. Also, since the group had not been able to come up with a title acceptable to everyone in the whole time they worked on the book, this duty was delegated to one of the students who worked during September. He settled on Sunshine Unfolding.

The almost-camera-ready copy went to the printer at the end of September. There was still a small amount of work on preparing the illustrations for printing that had to be done by the printer. Since we'd asked to have the job done on a "fill" basis--that is, the printer would use the job to fill in between higher priority jobs--the printing has taken quite a long time. We are still waiting, at the end of December, for delivery, which we're told will be in early January.* But it's less expensive that way.

A copy of Sunshine Unfolding is included as Appendix H of this report.

2.5 Looking Backward: Debriefing the Year and Tying Up Loose Ends (June-December 1972)

During the summer months of 1972 the work of both the Schoolbook and the evaluation of Boulder Experiments continued, as described in the previous section and in the Appendix G (the Boulder Experiments Scrapbook). In addition to this work of finishing up the two separate projects, several activities involving the SADMESS group as a whole took place. These included participation in the SSEC's Annual Invitational Conference (the "Roundup"); a second, year-end retreat to the cabin in the mountains; and the development of ideas for this document. In these activities, our attention (both individually and as a group) focused on taking a backward look at the previous year, reflecting on our experiences, trying to draw some conclusions about what we'd learned and how we'd grown, and attempting to develop some ways of passing our experience on to others.

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*Note: On February 1, 1973, we received the finished books from the printer. "Beautiful! Uh-oh-what's this. Page 26, page 75? They've got the last signature in the middle of the book!" The books are now back at the bindery being recollated and rebound. "The best laid plans of mice and men....."

The Roundup took place on June 16-12 and was held in the Phipps mansion at the University of Denver. About 80 social scientists and educators, mostly Consortium members, attended. Every year the SSEC holds such a conference to bring people together to exchange information and ideas about social science education. The SADMESS students were scheduled to make two presentations: first, they put together a morning session that all conference participants could attend to learn and talk about the year's SADMESS activities; second, two of the students prepared and presented a brief report on SADMESS for the annual Corporation meeting, attended only by SSEC members. At first the students were reluctant to go to the conference--all those old people sitting around and talking didn't sound exactly like fun and it did sound a little scary with all those "big names." However, the professional staff suggested that everyone who could ought to go at least for the two planned SADMESS events, for it would look "dumb" if the adult staffers were the only ones interested enough to show up. Most of the students did finally attend, and much to their surprise the "old fogeys" flocked around them; the conferees were delighted for the chance to get to talk to students who were themselves familiar with some of the problems faced by curriculum developers. The students themselves were delighted because these people were actually interested in (in fact, excited about) what they were doing--the kids had had their fill of trying to persuade "outsiders" to take an interest in the fair and the Schoolbook--and the conferees asked them stimulating questions that turned their attention to reflecting on the year as a whole and making some generalizations about their experiences. Most of the students stayed around much longer than they had planned, and even returned on subsequent days. They could be seen in intent discussions over dinner with conferees and in members' presentations sessions questioning and adding a student perspective to the discussions.

The participation in the Roundup stimulated a strong interest in taking time out before the end of the project to pull together the whole year, both for personal edification and in order to produce a good final report through which to pass on to others our experience. Shortly after the Roundup, Janey reflected this "historical" interest in a memo to the SADMESSers, which is contained in Appendix I.

We had planned for some time to go on a second retreat at the end of the project, but up to this point we had not thought of it so much as a "debriefing" session as simply a fun get-together to cap off the year. At the end of June we went up to the cabin in the mountains to talk about the year. At first it seemed very strange to be back at the place where we'd begun the year. This time we invited not only Rocchio, but several other people (Celeste Woodley, Nicholas Helburn, and others) to come up and question us in order to stimulate our reflections. Though we didn't draw up any formal agenda, we all generally agreed that the topics for discussion would cover both the content and format of the final report. We went armed with reels and reels of tape for recording our discussions, as well as a number of documents from the beginning of the year to stimulate our memories. (Among them were the students' filled-out applications, which gave us many laughs and many insights when we reread them to compare initial aims with the outcomes of the year.) Though much had changed during the year--we were better able to communicate with one another, to accept our differences in viewpoint (perhaps since we didn't have to work together much longer, or perhaps because we'd really become more tolerant of each other), and to accept each other as equals with differing but valuable backgrounds and capabilities. There were still many unresolved problems, but we'd learned to laugh about many of those. And everyone seemed to be able to find a number of positive personal benefits resulting from the year's experience. Some of the results of this self-evaluation are reported in the following section. In addition, portions of the tape transcript from the retreat are included in Appendix I.

One curious thing we noticed when we got the photographs back from the second retreat: we had to be sure to keep these pictures separate from those of the first retreat because, strangely, we all wore almost the same clothes to both! We hope that no one will read that as an indication that nothing changed!

Feeling in a reflective mood following the retreat, most of us took some time out from the two projects to jot down our thoughts about the year. Off and on one or another or us would pull together a piece or two of material for possible inclusion in the report. And Janey spent a goodly amount of her time in August trying to pull all these reminiscences and documents together for a first draft. She and Susie worked out a tentative outline. But, unfortunately, we were not able to get a real draft of the report written before everyone had to leave for school, travel, or whatever their destinations in the traditional post-graduation diaspora. Hence, the actual writing of the final report was not finished until the end of the year and was largely done by the permanent members of the Consortium staff, who hereby apologize for any distortions contained in the report as a result of not having the group to consult during writing.

3.0 EVALUATION

The SADMESS project proposal listed six objectives, three that could be described as "product" objectives (sections 3.1 through 3.3 below) and three that could be described as "staff development" objectives (sections 3.4 through 3.6 below). In this section, we shall review each of the original objectives, bringing to bear the events of the project and the judgments of the participants in order to see if the objectives were met.

3.1 The program will produce four to six environmental education activities which emphasize the social aspects of environmental problems and various proposed solutions to those problems.

This first major objective was met, though in somewhat modified form. We did produce environmental education activities emphasizing the social aspects of environmental problems and proposed solutions, as demonstrated by the two major products of the project, Sunshine Unfolding and Boulder Experiments Scrapbook in Appendices H and G. However, it is difficult to describe these two products as "four to six" activities; one might view them as only two activities or one might see them as collections of many more than six each. We were encouraged by Paul Cromwell, on his site visit to the project in the fall, to use our own judgment about whether to deviate from the four to six activities promised in the original proposal; he indicated that the Office of Environmental Education was not holding to a tight, literal interpretation of the proposals if what was produced in the end was worthwhile and roughly equivalent to the original objective. Thus, we decided that two "large" projects, which were of greater interest to us than the ideas we'd had for several "small" activities, would be appropriate for the year's work.

A number of sub-objectives were listed under the first major objective to elaborate on the shape of our product:

3.11 The activities will vary in length, with some designed for two days of classroom use and some requiring possibly as much as two weeks of class time. Some will be designed for use in 11th- and 12th-grade classes and some for 4th- and 5th-grade classes. Both classroom and out-of-school activities will be included in the activities.

As mentioned above, the two "activities" finally produced were much longer than the two days to two weeks specified above: to produce a book and a fair on the scale we did are full-semester activities at the least. One might, however, conceive of these two long-run activities as being composed of a number of shorter-term sub-activities, some of which could be accomplished by individuals or groups not involved for the total duration of the overall projects.

The mix of sub-activities, particularly in the Boulder Experiments fair, allows for participation by a wide age-range, from first graders through adults. (The Sunshine Unfolding book, however, is probably only appropriate for senior high school and over.) Thus, though we focused primarily on the 11th- and 12th-grade target of users for our products, there is more than ample room for use of at least the Boulder Experiments ideas at both lower and higher levels.

It is, of course, obvious that both out-of-school and in-classroom activities are provided for in the materials produced.

3.12 Student and teacher materials will be provided with each activity. These will include both print and non-print media. Print media will be provided in easily reproducible form. Non-print media such as slides, transparencies, and tapes will be of an inexpensive variety and easily duplicable. Careful attention will be paid in the teacher materials to describing strategies and procedures for a variety of both in-school and out-of-school learning activities and action programs. Student materials will contain appropriate readings, simulation games, worksheets for the activities, and other such items.

As you can see in *Sunshine Unfolding* and *Boulder Experiments Scrapbook*, we made no distinction between student materials and teacher materials. This was because the student staff members felt that student users of the materials should have all the directions for use, since both activities are designed to bring out student initiative and responsibility, and should be open to use by students alone, without any guidance from teachers. (There may well have been an element of reaction here also to the feeling that a teacher, holding the only copy of the directions for running a classroom activity, is in a position to somehow "manipulate" the students, and a reaction against the rather offensive status of the teacher as possessor of the "answer key.")

As it has turned out, the materials we produced do not include much in the way of non-print media, though *Sunshine Unfolding* is excitingly illustrated and copious examples of forms, letters, and so forth are included in *Boulder Experiments Scrapbook*. There are suggestions of non-print media which can be employed or developed in using our materials, however. Also, a slide show is available to accompany this report. Its 40 slides were selected from the 800 or so photographs we took during the development of the project. Audio-tapes, transparencies, and other non-print media were all used during the course of the project, but because of other higher budgetary requirements we have been unable to reproduce these for inclusion in our final products, and we really saw no crying need to do so. Descriptions of strategies and procedures for learning activities have been described in Boulder Experiments Scrapbook and very general suggestions, hints, and questions are included in Sunshine Unfolding. Also, examples of appropriate working materials, such as readings and forms, have been included.

3.13 The activities will be multidisciplinary, drawing on the natural and social sciences, as well as the arts and humanities, as appropriate. However, emphasis will be given to the key concepts of the social sciences as analytical tools for understanding the causes of environmental problems, the dynamics of interaction between society and the natural environment, and the consequences of alternative solutions to environmental problems. Powerful concepts which cut across several disciplines will be utilized and it is anticipated that the materials will build a bridge between the concepts and processes of the social and natural sciences.

That the activities developed cut across disciplines cannot be denied. And that they list heavily toward the social sciences and humanities, rather than the natural sciences, is also clear. However, what the writers of this objective had in mind at the time of writing and what is contained in the products are two rather different images. The objective implies a much more "structured" use of the concepts and principles from the social science disciplines as organizers and analytical tools. The professional staff had envisioned "activities" more akin to the materials of major national curriculum projects, such as the High School Geography Project and the Biological Sciences Curriculum Study. In spite of the dissimilarity between the original and the final images, reliance on major components of several disciplines appears clearly in the materials. Sunshine Unfolding draws heavily on philosophy, particularly as it deals with the problem of values (ethics). The description of Boulder Experiment's development is heavily influenced by considerations of social psychology, as well as politics and the "organizational" sciences.

Unfortunately, the natural sciences really seemed to have gotten short shrift in the project. There was very little in the way of "building bridges" between the natural and social sciences. Some of us, as a result, felt a bit short changed, since we had been looking forward to learning about the interrelationships among what's taught in our biology classes and what's taught in our civics classes.

3.14 The activities will focus on environmental problems that are of concern to elementary and secondary school students and that can be developed in such a way that they will be of interest to the students. The problems selected for study in the activities may be current controversial public policy issues, personal value conflicts, or gaps in our understanding of the dynamic relationships between the social order and the natural order. The staff will develop an extensive list of possible problems; however, the students working in the program will have major responsibility for the final selection of problems around which to build curriculum activities. An effort will be made to select problems that can be studied locally but that are typical of problems existing throughout the nation....Consideration will be given to how decisions are made, how conflicts are resolved, and to the economic, political, social, and psychological aspects of the environmental problems and their solutions.

Our attempt to meet this objective--dealing with environmental problems of interest to students--was in great part responsible for modifying the objective of producing four to six activities and for deviating in various ways from other stated objectives. We did begin with the strategy implied in this objective--listing local, national, and world-wide problems--and then tried to home in on just a few. But, because of the problems of finding commonalities of interest of specific, focused environmental problems among the eight students in the group--not to mention the problems of determining what specific environmental problems might be of interest generally to students across the nation at different grade levels--we ended up constructing the two rather broad, flexible activities that allowed for a wide variety of interests and talents to interact. If one were required to generalize about the direction of student interests in environmental issues on the basis of the SADMESS experience, the following would probably be indicative:

- Students appear to be vitally interested in the question of environmentally related values and their relation to overt behavior. (The Sunshine Unfolding group took this as their central focus, in studying what various major philosophies and religions have had to say about how man should relate to his physical environment and whether man's behavior "fits" with his stated beliefs and values.)

- Students appear to be vitally interested in how one can DO SOMETHING about environmental problems. (The Boulder Experiments group displayed this orientation in its effort to put on an educational fair that would focus on educating the public about alternatives for Boulder's human and physical environment.)

These two generalizations are probably not news to anyone.

3.15 The activities will be designed to involve the student user in the scientific method. Situations will be created and activities will be proposed so that students will formulate problems, develop hypotheses, gather data, test their hypotheses, and draw conclusions.

If ever there were an objective we did not meet, it is this. The two activities developed are quite remote from the "scientific method," as were the interests of the students. Though the professional staff--loving the scientific method as they do--did attempt at numerous points in the project to inject techniques of hypotheses testing and data gathering, their attempts were unable to penetrate the wall of disinterest of most of the students.

3.16 The activities may involve students in organizing community action programs. These will require students to develop effective schemes for organizing and carrying through community action programs.

Just as glaring as the failure to meet the objective of using the scientific method was the success in meeting this objective in the Boulder Experiments adventure.

3.17 The activities may include references to existing environmental curriculum materials, may use excerpts from those materials, may reflect some synthesis of ideas from existing materials, and may attempt to tie together certain existing materials. Environmental materials now available appear to be deficient in analytical concepts of the social sciences; however, many materials contain effective strategies that may be useful in the proposed activities. In addition, social science concepts from social science curriculum materials may be applied to environmental problems, e.g., economics concepts such as scarcity, interdependence, and opportunity costs. The curriculum development team will have access to the many curriculum materials that are available in the Social Science Education Consortium Resource Center.

Elements from existing curriculum materials are not clearly reflected in the materials produced by SADMESS. The instructional materials in the Consortium's Resource Center were used, rather, as illustrations of various possibilities for curriculum development under consideration in the early part of the year. The students did spend some time reviewing existing materials, not only to learn about what already existed and varieties of approaches to environmental and social education, but also to learn about useful thinking tools and language employed by educators. For instance, several students reviewed the statement of objectives of a number of materials sets in order to learn how to clarify their own objectives.

Perhaps the greatest impact of the materials in the Resource Center was to show to students what they did NOT want to do. The students were possessed with a strong inclination to produce something VERY, VERY DIFFERENT from existing materials.

3.18 At the end of the project, the activities will have been developed through a first-revision stage. They will be ready for either extensive school trials and further revision or mass production. Which course will be followed will depend on what the Office of Environmental Education deems appropriate and the availability of funds.

By the word "revision" in this objective, the writers of the proposal had initially envisioned a revision of the first draft of the materials based on feedback from school trials. In the case of Sunshine

Unfolding, the materials were never tested out in classrooms, even though numerous revisions of the manuscript were made before printing. In the case of Boulder Experiments, the "classroom trials" of the materials took place actually before the materials were ever developed. The students opted to follow the model of the Environmental Studies project in this and first do something, then write up the "natural history" of it.

The SSEC has printed a limited number of extra copies of both products to make available at cost to potential users of the materials. At this point, we have no further plans for testing the materials and refining them, though if interest is shown by future users of the materials or by the Office of Environmental Education we would certainly consider further work.

Though we do not plan work further on the SADMESS materials *per se*, we do intend to build on the experience of the project by further refining the model of student and community participation in education which began to take shape during the project.

3.2 *The program will develop a conceptual framework which will specify the foundation concepts and processes to be utilized in the development of units and in other possible environmental education materials. The framework will include the most powerful analytical concepts and the most useful methodological processes of the social sciences that can be applied to environmental problems. Concepts will be selected from a variety of sources, including existing curriculum materials...*

At the beginning of the year we did make a few feeble attempts at this "big think" endeavor. However, the conceptualization of an ordered, overall framework proved to be a bit "heavy" for the students, and it was felt that if we proceeded with it, it would be primarily the product of and of interest to the professional staff rather than the students. Therefore, we dropped our attempts at this ambitious project, with the tentative hope that by the end of the year we could return to it. However, we did not. It was perhaps a bit much to expect our group to be able to do what "the experts" haven't yet been able to do very well.

3.3 The program will experiment with a new model for student involvement in curriculum development. High school students will participate as full members of the development team in setting educational goals; designing learning activities to help achieve those goals; testing the materials, strategies, and models they have developed in the schools; and evaluating their own and the development team's efforts. This model will be described and evaluated so that it can be implemented by other institutions in either the form used in this program or in one of several variations that will be suggested.

This report, with its accompanying appendices, is our effort to describe the model of student involvement in curriculum development with which we experimented during the SADMESS year. The model includes the full participation of students working with professionals in the four areas of curriculum development mentioned above: setting goals, designing learning activities, testing materials, and evaluating their curriculum development efforts. We experimented with student involvement in the first, second, and fourth areas. However, students did not become involved in the testing of their materials. This was due primarily to the nature of the materials themselves, but also to the lower priority in the eyes of the students of testing as opposed to development.

Overall, we do not believe we can recommend this model as is for general use in the schools. But with some modifications, we believe our experiences could be translated into some very effective, invigorating school programs.

The SADMESS model, as it stands without modifications, seems impractical for several reasons. A major problem is its costs, both in money and in time. The project cost $50,000; schools do not have that kind of money to spend on just a few students. The project also took a tremendous amount of time on the part of the professional staff--not only those people specifically assigned to the project, but also other staff members of the Consortium and ERIC/ChESS. Some of this staff time was devoted to working individually or in small groups with students, helping them figure out how to organize and execute various tasks necessary to the accomplishment of their goals. Some of the staff time was required to "fill in the gaps" and accomplish tasks that the students had been unable to do because of lack of skill or time. And some of the staff spent time trying to figure out how to accomplish tasks for which they themselves had little preparation or experience. Thus, unless a school can afford a very low student-teacher ratio, has flexible teachers willing to do just about anything to pick up the ball at points where students drop it, and has teachers who are very skilled and experienced (or willing to spend many hours learning) in social action techniques or bookmaking or whatever skills are required, such projects on the scale of ours are not recommended.

These types of projects would probably not be appropriate for all kinds of students, though a wide variety of students could probably find a niche somewhere in either project. Without modification, our model requires a huge amount of initiative on the part of the student participants. The responsibilities involved could, and sometimes did, weigh very heavily on the students. We found very near the end of the project that one student, whom we'd all thought was "plain lazy," was frightened to near-immobilization by the amount of independence and self-motivation he was expected to display. Though all turned out well, and he was quite proud of and amazed at himself for having survived, we should have given him even more support and attention than we did give him (which was substantial) in order to help him through the year with less anguish and more productivity.

The above cautions are not intended to indicate that no one should ever try such a project again. Far from it! Rather, they are recommendations that, when students are involved in the creation of their own curricula, the end products attempted should be on a much less ambitious scale.

For instance, instead of planning a fair that requires continuous planning and work for a year before the final "payoff" and feedback, one student suggested doing a series of smaller projects that are in spirit the same but in substance and motivational value quite different. He suggested that we should have developed instead a series of more limited community education projects related to local environmental issues--one month set up and man an Adventure Playground for one or two weekends; the next conduct an open, day-long seminar on some local environmental problem or problems, in the park or in a sidewalk cafe downtown;

the next month, conduct an experiment with public transportation for a few days; and so forth. Such a procedure would have several advantages over the way we developed the Boulder Experiments fair:

. Participants wouldn't have to wait for months for a single, flamboyant payoff, but rather could see the fruits of their labors at regular intervals. This would help to sustain motivation, and would give them more immediate feedback on what they were doing right and what they were doing wrong.

. Participants would have an opportunity to apply what they learned in one month during projects for subsequent months. They could make immediate use of feedback; they could experiment with and compare the outcomes of a variety of ways of accomplishing the same or similar goals. One problem encountered in Boulder Experiments was the difficulty of making choices among alternatives, since many of us had no experience or little experience with any alternative ways of accomplishing our goals on which to base our decisions.

. Each event in the series would be more discreet and manageable. Participants would not be so likely to become periodically overwhelmed at trying to figure out how to organize their efforts, what to do when, what specific steps needed to be taken, and so forth.

. Community support and participation might be more easily developed. Students could "prove" their capabilities on small, limited, low-risk (for both students and community people, such as businessmen) ventures; potential community volunteers (student volunteers, too) would not have to make as extensive commitments of time and effort in order to participate actively; and the community in general would be more continuously aware of and involved in the project.

The above suggestion is only one possible way to delimit the scope of the fair project for implementation in a school class.

The model of development and student involvement for Sunshine Unfolding is probably more immediately useful for implementation in a school situation. It is not so far removed from "traditional" activities such as school newspapers and yearbooks, though it is still quite different from such activities.

The problem of continuing motivation is, as in the Boulder Experiments project, a consideration calling possibly for some adaptation--rather than drag the project out for a whole year, it might be wise to limit it to a semester. Also, in contrast to Boulder Experiments, there appears to be a more limited range of "niches" for a variety of student orientations in producing a book. There is very little in such a project that will stimulate the "activist" variety of student. It would probably be best suited to a group of artists and "intellectuals." Thus, the range of such a project's appeal could be a major limitation on its use.

The above disquisition on limiting the scope of student-involvement projects and being careful to adjust their pacing and appeal to student needs reflects some thoughts and worries that many of us had in mind even at the early stages of the project. But it should be noted that knowing that such projects should be less ambitious than ours and getting all participants to agree on how to limit them are two quite different matters. At least in our own case, we began by thinking of how to implement "our wildest dreams" and were only forced to relinquish those visions, to make the hard choices of what to retain and what to eliminate from our plans, by the most extreme pressures of time and limited manpower. We definitely had problems with choice-making--both individually and as a group--throughout the year. It seemed that none of us ever wanted to give up anything. These problems were foreshadowed by our struggles with trying to work out our "decision-making procedure" at our first retreat. Thus, perhaps the prime caution we can offer to anyone undertaking such a project is to be very attentive to the problems of decision-making in his student involvement model.

3.4 The program will provide a new kind of learning experience in which students acquire knowledge, skills, and attitudes by participating with teachers and professional staff as members of a team performing the crucial educational task of developing learning activities. The program will experiment with extensive student participation with the hope of developing one or more models for involving students in curriculum development that may be adopted for use in other educational settings.

This is the first of the three "staff development" objectives outlined in the original SADMESS proposal. It focuses on the learning expected from the students participating in the project. It is based on the assumption that at least some kinds of things can be better learned outside the classroom, through interaction with and observation of adults in work situations and through the assumption of greater responsibility by the students for guiding their own learning. The students seemed to agree at the end of the project that many--perhaps most--of the things they had learned during the year were of the sort that would be at least very difficult to learn within the confines of a single classroom, though perhaps not if their range of action and study were broadened to the whole school.

For instance, development of a book such as Sunshine Unfolding would require, at minimum, work in humanities and English, some social studies, a lot of work in the art, laboratory, and, if the school had printing equipment, work on the press. It would also require that students be able either to go outside the school to interview people or to invite consultants to the school for visits. Even with this opening of the doors between the discipline-oriented classes, participants would still not be exposed to a variety of professional and skilled personnel on a day-to-day basis where they could simply observe and pick up by "osmosis" ideas and techniques.

Taking the example of Boulder Experiments, it is even harder to imagine that the learning resulting from such a project could take place within the walls of the classroom.

In the proposal, a number of specific areas of learning were delineated under the student learning objective:

3.41 An examination of learning theory, including the study of how learning takes place and of instructional strategies which may help to achieve desired results.

We actually paid very little attention to this after the very beginning of the year. The students preferred to leave learning strategies in their materials rather open-ended; they wanted whoever used their materials to use them however they wanted, not in some pre-determined manner. Thus, how learning takes place was not a central focus of study in the development of materials; though we had many informal discussions about learning and education and we did a lot of dreaming about how it could be made more effective and fun.

3.42 Utilization of certain group-process activities to enable the entire staff to work together more effectively as a team.

This area of learning was of tremendous concern throughout the year--enough so to say tentatively that it was in the realm of communications and interaction skills that we all learned the most. Though such skills can, to a certain extent, be learned in classroom settings, a number of elements would be missing there which added great impact and meaning in the SADMESS experience. Usually in the classroom, students do not feel so much responsibility for making an activity "go," hence do not take their responsibilities to examine themselves, to communicate to others in the group, and to understand all points of view so seriously. Also, in the classroom, the teacher is usually not perceived as on an equal footing with the students, and hence many inter-age conflicts do not surface and are not dealt with.

3.43 Consideration and utilization of certain management skills in curriculum development, such as time planning, task division, schedule coordination, and budget allocation.

Though students may frequently have to learn to plan their time on a limited scale, in order to get their studying done and so forth, rarely are they called upon in connection with their schoolwork to undertake long-range planning (including determination and prioritization of goals). Neither is it common for students to have to work out their own division of labor to accomplish cooperative ventures, to have to figure out how to coordinate their individual schedules with one another, and to decide on budget allocations on a very large scale. These are tasks that one does not usually encounter until he has entered the world of work, and they require skills which are not particularly easy to come by, skills that are not usually dealt with in the schools.

3.44 Utilization and development of cross-age helping skills. Student-developers will gain experience in working with older students who are members of the team and younger students in the intermediate grades. The students will participate in classroom observation, discussions with elementary teachers, and trial teaching of materials developed. Students will also have the opportunity to demonstrate the activities in University of Colorado classrooms and in inservice teacher training programs.

This objective was not very well met. The cross-age interaction of the student and professional staff members was of overwhelming importance, as were the cross-age interactions with members of the community. However, the students did not have much opportunity to work with youngsters, and for the most part seemed reluctant to do so on a more than casual basis. We did no classroom observation, only a limited amount of discussion with elementary teachers, and no trial teaching of materials. In addition, we did no demonstrations of materials in preservice or inservice training classes.

Besides the four major areas of learning above, we also anticipated learning in two other areas, both closely related to the content and method of the social sciences. We expected the project to provide:

3.45 An unusual opportunity to gain an understanding of the analytical concepts of the social and natural sciences.

The students undoubtedly did learn a wide variety of analytical concepts from the social sciences--and probably many, but fewer from the natural sciences--simply from being around and talking with a passle of social scientists and social science educators. These tools were not employed in any outstanding measure in the content of the two final products of the year; however, we have good evidence to indicate that the students did pick up quite a bit of the content and methods of the social sciences, and education, even though they did not find them useful enough or did not understand the ideas well enough to apply them explicitly in their final products. This evidence consists of:

. The students' abilities by the end of the year to fling the lingo of social science and education around as well as any teacher, achieving reasonable approximations between terminology and meaning.

. The students' own testimony at the end of the year that they had noticed an increase in their ability to understand and participate with comfort in professional discussions. They demonstrated this ability during their participation in the Roundup in June, and remarked that they never could have made sense out of such a conference at the beginning of the year.

3.46 An unusual opportunity to develop skills in such areas as map interpretation, data gathering, and communications, including writing and audio-visual media. Students will also gain skills in research design and statistical analysis.

A large batch of the learnings that occurred during the year could be cited under this category. The staff did not make any attempt to systematically teach such skills, but rather worked with students individually or in groups when the occasion demanded. For instance, in the planning of the layout of the Boulder Experiments fair, it became necessary to construct scale maps of the downtown area and fiddle around with various arrangements of booths, fire lanes, and parking facilities. There were, of course, many occasions in which writing skills were employed--almost constantly on the Schoolbook, and less often in Boulder Experiments. Thus, informal tutoring and consulting on grammar, syntax, punctuation, word-choice, and style, among other writing problems, occurred throughout the project. One help for those students who didn't like to write, but did like to rap, was the dictaphone. They would dictate what they wanted to say; Connie would transcribe it; and then they would have a rough draft to work with, rather than having to face a blank page. Even the last two skill areas--research design and statistical analysis--were touched on lightly when it came time to develop a plan for evaluating Boulder Experiments, gather the data, and interpret the results. The students developed their own questionnaires, did the interviewing themselves, and began the tally of the results. Unfortunately, time ran short and they were unable to complete the interpretation of the data.

3.5 The program will provide a learning experience in which teachers and professional staff have the opportunity to develop new understandings and attitudes regarding the use of students as partners in the development of educational materials. Many of the outcomes to be achieved by the student-developers will also be achieved by the teachers and professional staff.

The professional staff had much greater opportunity to reap the benefits of this project than did the teacher consultants from the Boulder Valley Public Schools, who were not utilized to the extent originally intended. The learning that occurred on the part of the staff was as wide and varied as the students' learning. Many of the things the students learned were new to the staff as well, and in this sense the project was certainly a situation of mutual inquiry. How does one go about getting permission to close down a major thoroughfare for a weekend? How do you persuade the Downtown Businessmen's Association that you're not a bunch of crazy freaks and that the fair is a good idea? What do various American Indian tribes think about how man should treat the earth? How do you paste up a book so that all the illustrations come out in the right places, the ink on that line is reversed, and that photo has a 50% screen? How do you tell the kid you think he's doing a lousy job without destroying his ego so much that he quits during the last week before the fair when you can't do without him? How do you keep from acting like a dictator and still get the work done? How do you encourage a student to say what's on his mind when you know he's a little scared to because it's critical of you? And how do you react when that criticism finally comes out?

In addition to these matters, about which both students and professional staff learned a great deal, the professional staff learned much about students--or remembered much that they had forgotten, in the case of former teachers on the professional staff. They learned what most good teachers know, but what many curriculum developers often don't know or overlook: that seniors in high school are neither as bright nor as dumb as we are inclined to think, depending on the occasion; that seniors in high school tend to be rather uneven in the development of their skills, their emotions, and their thought processes; that students in high school are extremely unpredictable because of this uneven development; and that the unpredictability can be creative on some occasions and terribly mundane or even destructive on others.

Perhaps most importantly, however, the professional staff learned--or were confirmed in their original hypothesis--that high school students are quite capable of taking great responsibility for developing their own curriculum, given the support necessary to bolster those uneven spots in their development.

3.6 In addition, the results of this program are expected to have a spillover effect of encouraging greater use of students in all areas of the educational process.

As yet it is rather difficult to see that this particular program has had any significant impact in the Boulder Valley Schools or elsewhere on inclusion of students at more stages of the educational planning and development process. Of course, such effects are typically slow to take root, and thus its probably too soon to judge. It is hoped that this report and the products of the project will, when made available to a wider audience, add some stimulus in this direction. It is hoped, also, that the experiences of this project in involving students in out-of-school work experiences for course credit will give a boost to expanding work-study programs beyond the currently popular "voc ed" variety. If properly tied to the social studies curriculum or the science curriculum of the schools, external work programs can add significant dimension to the in-school academic work.

3.7 Other Evaluative Comments.

In addition to the general evaluative observations made in the previous paragraphs, dealing with specific project objectives, the reader will find an abundance of interesting material in Appendices I and K.

Appendix I contains a transcript of portions of the tape recordings made during our discussions at the final retreat. Appendix K contains our "logs"--diaries kept intermittently by various students and professional staff members.

4.0

FINANCIAL REPORT

for the period
June 28, 1971 - December 31, 1972

U.S. Office of Education Grant Number OEG-0-71-4577 (508)

Revenues:		$49,998.00
Grant Income		$49,998.00
Expenditures:		
Salaries, Wages, and Contract Labor	$29,091.57	
Employee benefits	1,536.31	
Consulting	1,810.00	
Travel and Subsistence	893.47	
Services and Supplies	3,825.92	
Telephone	105.92	
Postage	307.74	
Printing and Duplicating	3,891.83	
Instructional and Curriculum Materials	106.80	
Indirect Costs	8,428.44	
Total Expenditures:		$49.998.00
Balance in Grant		$---------

5.0 APPENDICES

A. Proposal

B. Documents related to Arrangements with Boulder Valley Public Schools

C. Documents related to Recruitment of Students and Teacher Consultants

D. Orientation Documents

E. Documents related to the Generation of Ideas for Activities

F. Documents related to the Development of Sunshine Unfolding

G. Boulder Experiments book

H. Sunshine Unfolding book

I. Documents related to "A Backwards Look"

J. Slides and Script for Slides

K. Logs

L. Staff and Consultant List

APPENDIX A

A Proposal For
Development of Environmental Education Activities
Emphasizing the Social Sciences
and
Using Students as Curriculum Developers

A Proposal for
Development of Environmental Education Activities
Emphasizing the Social Sciences
and
Using Students as Curriculum Developers

A PROPOSAL FOR SUBMISSION TO THE U.S. OFFICE OF ENVIRONMENTAL EDUCATION
Requesting Funds Under the Environmental Education Act of 1970
(May 26, 1971)

Applicant Institution:	Social Science Education Consortium, Inc 970 Aurora Avenue, Social Science Building Boulder, Colorado 80302
Information Contact:	Karen B. Wiley, Staff Associate Social Science Education Consortium, Inc. 970 Aurora Avenue, Social Science Building Boulder, Colorado 80302 (303) 443-2211, ext. 8155
Category of Activity for Which Funds Are Requested:	Curriculum Development (Category J of Priority Group II)
Total Amount Requested:	$60,414
Total Amount of the Project:	$60,414
Duration of Grant:	August 15, 1971 to August 15, 1972
Other Participating Agencies, Institutions, Organizations:	Boulder Valley Public Schools

Contracting Office of
Applicant Organization:

Irving Morrissett

Irving Morrissett, Executive Director
Social Science Education Consortium, Inc.
970 Aurora Avenue, Social Science Building
Boulder, Colorado 80302
(303) 443-2211, ext. 8155

Official Authorized to
Obligate Institution:

Irving Morrissett

Irving Morrissett, Executive Director
Social Science Education Consortium, Inc.
970 Aurora Avenue, Social Science Building
Boulder, Colorado 80302
(303) 443-2211, ext. 8155

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Appendices

Appendix A: Overview of the Social Science Education Consortium, Inc.
Appendix B: SSEC Newsletters #9-10
Appendix C: A Basic Information Page on ERIC/ChESS
Appendix D: Overview of Targeted Communications on Environmental Education (TCEE) Project
Appendix E: List of Members of the Social Science Education Consortium, Inc.
Appendix F: Vitae of Proposed Project Staff
Appendix G: Documentation of Non-Profit Status of the Social Science Education Consortium, Inc.

I. ENVIRONMENTAL EDUCATION GOAL

Witnesses testifying before the House Subcommittee on Education on the Environmental Education Act of 1970 stressed the importance of a massive educational campaign as a major part of the solution to our environmental problems. Though some witnesses argued for giving priority attention to educating one or another target group, all appeared to agree that, ideally, the educational needs of all segments of the population should be dealt with simultaneously. The desired changes in man-environment relationships could be most quickly and effectively brought about if the whole society's consciousness were moved at once. Thus, young and old, producers and consumers, government officials and average citizens, rich and poor, scholars and laborers, all must be educated.

The witnesses also emphasized the need to use all possible channels of education in accomplishing such a massive program--private and public schools, traditional and "alternative" schools, universities, community colleges, private adult education institutions, public service organizations, special interest associations, the mass media, eco-action groups, student organizations, state and local governments, and so forth. Different educational channels reach different target groups and present diverse kinds of information and alternative solutions. Through utilization of all possible channels, many diverse segments of the population can be not only informed but drawn into active participation in the national effort. The witnesses before the Subcommittee thought it especially important that we try to draw upon the energies and concern of young people, encouraging them to participate in the effort as educators as well as targets of the educational campaign.

Though the testimony contained diverse suggestions about what should be the specific content and objectives of enviornmental education, there were four broad areas which, it was generally agreed, should receive attention:

(1) Increasing the general awareness of the existence of serious environmental problems. All citizens and future citizens should become conscious of the fact that real, personally relevant threats are posed by man-created imbalances in the natural environment. One could certainly say today that, with the massive coverage of environmental issues by the mass media, the vast majority of the population of this country are aware that problems exist. Whether or not they feel this threat in a personally significant sense is, however, another matter.

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(2) Increasing understanding of and effecting changes in values and life styles. Many witnesses seriously questioned our capacity for making any headway in solving environmental problems without effecting radical changes in our value systems and life styles. They pointed out incompatibilities between maintaining ecological balance and our beliefs in the desirability of unlimited economic growth, the existence of limitless resources, and the abilities of man to intervene beneficially in the natural environment. Nearly all witnesses agreed that our value systems and their manifestations in life styles lay at the root of problems with the environment today. In order to solve the problems, we must examine our values, determine what values act as barriers to environmental solutions, and discover ways to facilitate their evolution into less dysfunctional values. Thus, not only must the citizenry become aware of environmental problems; the awareness must be transformed into active motivations for self-examination and change. We must create a climate of values and attitudes which is receptive to the necessary solutions to our problems.

(3) Increasing technical understanding of the complexities of the natural environment. In addition to creating a fertile attitudinal climate for environmental solutions, we must have the technical competence to design and implement effective remedies for the imbalances we have created. There are two aspects to this task. We must increase the overall level of technical understanding of the general citizenry, so that they will recognize the complexities of determining and effecting environmental solutions and be able to make intelligent choices from among alternative solutions; and we must train professionals in the natural and physical sciences to cope with practical environmental problems and increase our fund of knowledge through research.

(4) Increasing knowledge of the dynamic relationships between the social system and the natural environment. The things we call "environmental problems" occur when man's social institutions, values, and technical capabilities impinge dysfunctionally on the natural environment. Our technical competence and value reorientations will be of no avail if we do not also draw on and increase our social science knowledge in seeking environmental solutions. James Aldrich expressed this in especially clear terms during the Subcommittee hearings. We must have a working knowledge--solidly based on social science research--of the dynamics of our social decision-making and executive mechanisms if we are to make good use of our technical knowledge in solving environmental problems.

None of these four areas of content are the "exclusive property" of any particular discipline. Rather, they are all problem-focused. Understanding them requires data, skills, and concepts from many disciplines, and perhaps even some areas of human thought not yet allotted to any established discipline. The witnesses before the Subcommittee were nearly unanimous in decrying the unhappy effects of fragmentation not only among the disciplines of academia, but also in the everyday working lives of businessmen, laborers, government workers, housewives, and others. Robert Motherwell, the artist who testified on the first day of the hearings, pointed out our tendency to separate our affective sensibilities and our practical workaday values into mutually exclusive compartments. In order to solve our environmental problems, it will be necessary to reintegrate not only our knowledge, but also our values and feelings.

II. PROJECT DESCRIPTION

A. STATEMENT OF THE PROBLEM

One small project cannot tackle all possible content objectives and target groups at once through all possible educational channels. There are many problems associated with reaching particular target groups, working through particular channels, and designing learning experiences which deal effectively with the various major content objectives. The proposed project will investigate, experiment with, and attempt to find some workable solutions to a number of these problems. We have selected a combination of target groups, channels, and content objectives for concentrated attention which we believe will produce a solid, extensive, and much-needed impact on the quality of education in general in this country, and on the quality of environmental education in particular.

First, we have proposed to deal primarily with the fourth area of content mentioned in Section I, the social aspects of environmental problems. The educational activities developed by the project will emphasize making our awareness, values, and technical knowledge effective through understanding, using, and changing our social institutions. This does not mean that the activities will focus exclusively on social science and action; rather, they will mesh existing natural and physical science knowledge with that of the social sciences, indicating ways in which our technical knowledge of the physical environment can be put to functional uses in decision-making and action programs to solve society's problems. The aim is to discover ways of increasing the actual and perceived effectiveness of students as individuals and groups and to develop in young people a very real sense of their ability to cope with the problems confronting them.

At present the materials dealing with the social aspects of environmental problems and solutions are few and frequently rather sketchy in their coverage. In conjunction with the Targeted Communication on Environmental Education Project, recently initiated under a U. S. Office of Education grant to the ERIC Clearinghouse for Science and Math Education (ERIC/SMAC) and the ERIC Clearinghouse for Social Studies/Social Science Education, a survey was made of the Social Science Education Consortium's (SSEC) Resource Center in Boulder. (Please see Section II for a description of the contents of the Resource Center.) It was found that only about 5% of the innovative social studies materials in the Resource Center could be said to focus directly on social aspects of environmental problems. A somewhat larger percentage were peripherally relevant to environmental problems, but much modification would be needed to tie them soundly into a course of study on the environment. In addition, ERIC/SMAC has conducted a survey of the environmental education materials produced under ESEA Title III grants. The vast majority of these materials emphasized natural and physical science learnings, though a few moved the students and teachers into the social aspects of environmental problems. But, as with the social studies materials in the SSEC Resource Center, coverage was generally spotty and lacked depth and coordination.

Secondly, the target groups on which we propose to focus our attention are elementary and secondary students, specifically fourth and fifth graders and eleventh and twelfth graders. In the hearings before the House Subcommittee on Education, Margaret Mead described the tradition of universal K-12 education in this country as providing an excellent, ready-made "regenerative cycle," if we choose to use our educational institutions for this purpose. Through the schools, we can continually produce, year after year, a new "crop" of knowledgeable, concerned young citizens. Since the solutions to environmental problems are not one-shot propositions, according to Mead, but rather like the continuing task of "good housekeeping," it will be necessary somehow to create such a continuing regenerative mechanism. Of all our mass educational institutions, it is probably the elementary and secondary schools, next to the mass media, which have the widest impact. Thus, we propose to produce educational materials and activities which can be used nation-wide at two levels in formal educational institutions. In addition, we will expand the coverage of environmental issues into social studies classes, which have not previously been much concerned with such problems. Thus, we can affect the degree of "saturation" in the regenerative cycle not only vertically--at two levels of education--but also horizontally--in more than one segment of the curriculum.

The third set of problems with which this project will deal involves the effective use of formal educational institutions as channels for environmental education. Our attempt to solve some of the problems in this area includes what we think is one of the most exciting aspects of the proposed project: the intimate involvement of high school students at all stages of the activity development process. Six students will participate as full-fledged co-developers in the process of setting educational goals, conceptualizing and developing learning activities, and testing and teaching their own materials and models.

Through use of this model of extensive student involvement, we plan to demonstrate the feasibility of successfully confronting many of the problems of motivation, responsibility, relevance, holistic and integrated learning, and cross-age cooperation. It has long been surmised that young people are capable of taking a much greater part in guiding their own education and that their learning would be enhanced by this. Rarely have we given them the latitude to work up to their own levels of ability and responsibility. This project is designed to permit high school students of varied skills and interests to work with their peers, a variety of adults, and younger children in developing several meaningful learning experiences which will help to fill in some of the gaps in environmental education.

The potential impact of this project is great. As we explain in Section II, the model for student involvement in curriculum development is expected to be transferrable, in toto, to a number of educational situations; and, with modifications, it should also be usable in a number of other educational settings. One of the major tasks of the project will be to produce a written document describing how other groups might use the model in their own work. The activities developed by the project will also have great potential impact, since they will be in concrete written and multi-media forms which may be easily and inexpensively reproduced for dissemination to any appropriate target groups and educational channels. They will include not only student materials, but also guides to help teachers and group leaders in implementing the activities.

B. PROJECT OBJECTIVES

The proposed project will develop a variety of products for use in improving not only environmental education, but education in general in this country. The products will consist of curriculum activities, including student and teacher materials and associated media; one or more conceptual frameworks for integrating environmental education into social studies curricula; and a detailed model of student participation in curriculum development.

1. The program will produce four to six environmental education activities which emphasize the social aspects of environmental problems and various proposed solutions to those problems.
    a. The activities will vary in length, with some designed for two days of classroom use and some requiring possibly as much as two weeks of class time. Some will be designed for use in 11th- and 12th-grade classes and some for 4th- and 5th-grade classes. Both classroom and out-of-school activities will be included in the activities.
    b. Student and teacher materials will be provided with each activity. These will include both print and non-print media. Print media will be provided in easily reproducable form. Non-print media such as slides, transparencies, and tapes will be of an inexpensive variety and easily duplicable. Careful attention will be paid in the teacher materials to describing strategies and procedures for a variety of both in-school and out-of-school learning activities and action programs. Student materials will contain appropriate readings, simulation games, worksheets for the activities, and other such items.
    c. The activities will be multidisciplinary, drawing on the natural and social sciences, as well as the arts and humanities, as appropriate. However, emphasis will be given to the key concepts of the social sciences as analytical tools for understanding the causes of environmental problems, the dynamics of interaction between society and the natural environment, and the consequences of alternative solutions to environmental problems. Powerful concepts which cut across several disciplines will be utilized and it is anticipated that the materials will build a bridge between the concepts and processes of the social and natural sciences.
    d. The activities will focus on environmental problems that are of concern to elementary and secondary school students and that can be de-

veloped in such a way that they will be of interest to the students. The problems selected for study in the activities may be current controversial public policy issues, personal value conflicts, or gaps in out understanding of the dynamic relationships between the social order and the natural order. The staff will develop an extensive list of possible problems; however, the students working in the program will have major responsibility for the final selection of problems around which to build curriculum activities. An effort will be made to select problems that can be studied locally but that are typical of problems existing throughout the nation. Examples of possible problems are:

(1) The growing conflict between the need for additional power plants and the desire to control the pollution caused by these plants. Students could study the many aspects of the benefits and costs of atomic power plants being built across the nation. The development team could use as a case study the St. Vrain atomic plant currently under construction near Boulder by the Public Service Company of Colorado.

(2) The use of pesticides for pest control. Students could study local use of pesticides and the effects of their use on the food chain. This study could bring out the dysfunctional relationship between man's desire to produce more food and his technical ability to manipulate the natural system.

(3) On a broader basis, the conflict between the advocates of the supersonic transport and those concerned with possible effects of the SST on the environment could be used as a special study of the political processes. It would also lend itself to a study of the economic and social consequences of various political decisions.

Consideration will be given to how decisions are made, how conflicts are resolved, and to the economic, political, social, and psychological aspects of the environmental problems and their solutions.

e. The activities will be designed to involve the student user in the scientific method. Situations will be created and activities will be proposed so that students will formulate problems, develop hypotheses, gather data, test their hypotheses, and draw conclusions.

f. The activities may involve students in organizing community action programs. These will require students to develop effective schemes for organizing and carrying through community action programs.

g. The activities may include references to existing environmental curriculum materials, may use excerpts from those materials, may reflect some synthesis of ideas from existing materials, and may attempt to tie together certain existing materials. Environmental materials now available appear to be deficient in analytical concepts of the social sciences; however, many materials contain effective strategies that may be useful in the proposed activities. In addition, social science concepts from social science curriculum materials may be applied to environmental problems, e.g. economics concepts such as scarcity, interdependence, and opportunity costs. The curriculum development team will have access to the many curriculum materials that are available in the Social Science Education Consortium Resource Center.

h. At the end of the project, the activities will have been developed through a first-revision stage. They will be ready for either extensive school trials and further revision or mass production. Which course will be followed will depend on what the Office of Environmental Education deems appropriate and the availability of funds.

2. The program will develop a conceptual framework which will specify the foundation concepts and processes to be utilized in the development of units and in other possible environmental education materials. The framework will include the most powerful analytical concepts and the most useful methodological processes of the social sciences that can be applied to environmental problems. Concepts will be selected from a variety of sources, including existing curriculum materials. For example, the High School Geography Project materials may be studied for relevance of concepts used in the settlement theme outline. Relevant economics concepts might be selected from Econ 12 materials and the Developmental Economic Education Program materials. Other concepts may be selected from such publications as Major Concepts for Social Studies developed by the Social Studies Curriculum Center at Syracuse University. Examples of substantive concepts from this publication that might have applicability to environmental problems are conflict, compromise and adjustment, power, scarcity, input and output, habitat, social control, and interaction. Examples of tech-

niques and aspects of method that might be utilized are observation, classification, and measurement; analysis and synthesis, objectivity, and evaluation.

3. The program will experiment with a new model for student involvement in curriculum development. High school students will participate as full members of the development team in setting educational goals; designing learning activities to help achieve those goals; testing the materials, strategies, and models they have developed in the schools; and evaluating their own and the development team's efforts. This model will be described and evaluated so that it can be implemented by other institutions in either the form used in this program or in one of several variations that will be suggested.

Staff Development Objectives

In addition to the products that will be developed by the program, more immediate benefits will be realized by the program staff. It is expected that other institutions adopting the materials and/or the curriculum development model will be able to achieve many of these same or similar objectives through use of the materials and/or model.

Staff development objectives will vary with different components of the staff, which for convenience can be separated into (1) student-developers and (2) teachers and professional staff.

1. The program will provide a new kind of learning experience in which students acquire knowledge, skills, and attitudes by participating with teachers and professional staff as members of a team performing the crucial educational task of developing learning activities.

   The program will experiment with extensive student participation with the hope of developing one or more models for involving students in curriculum development that may be adopted for use in other educational settings.

   Areas of focus in this development model from which desirable outcomes are expected include:

   a. An examination of learning theory, including the study of how learning takes place and of instructional strategies which may help to achieve desired results.

   b. Utilization of certain group-process activities to enable the entire staff to work together more effectively as a team.

   c. Consideration and utilization of certain management skills in curriculum development, such as time planning, task division, schedule coordination, and budget allocation.

d. Utilization and development of cross-age helping skills. Student-developers will gain experience in working with older students who are members of the team and younger students in the intermediate grades. The students will participate in classroom observation, discussions with elementary teachers, and trial teaching of materials developed. Students will also have the opportunity to demonstrate the activities in University of Colorado classrooms and in inservice teacher training programs.

In addition, the student-developers will be expected to benefit by:

a. an unusual opportunity to gain an understanding of the analytical concepts of the social and natural sciences, and

b. an unusual opportunity to develop skills in such areas as map interpretation, data gathering, and communications, including writing and audio-visual media. Students will also gain skills in research design and statistical analysis.

2. The program will provide a learning experience in which teachers and professional staff have the opportunity to develop new understandings and attitudes regarding the use of students as partners in the development of educational materials. Many of the outcomes to be achieved by the student-developers will also be achieved by the teachers and professional staff.

3. In addition, the results of this program are expected to have a spillover effect of encouraging greater use of students in all areas of the educational process.

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C. DESCRIPTION OF RESOURCES AND COOPERATIVE ARRANGEMENTS

There is a wide variety of highly relevant resources on which this project will draw, both in the Boulder-Denver area and through the SSEC's nationwide contacts.

The SSEC and the ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/ChESS), which is funded through the SSEC, are able to pull together a substantial information based on needs and gaps in environmental education throughout the country. (Please see Appendices A-C for descriptions of SSEC and ERIC/ChESS activities.) ERIC/ChESS is working jointly with the ERIC Science and Math Clearinghouse (ERIC/SMAC) in Columbus, Ohio, on a project developing Targeted Communications on Environmental Education (TCEE). (See Appendix D for a description of the TCEE project.) This is an extension of ERIC/SMAC's recent survey of the environmental education materials available from Title III and other projects. The TCEE project will broaden and deepen that survey, analyzing the best of the available materials and programs--from Title III, from other funded projects, from school systems and states, and from commercial producers--and report on the strengths and weaknesses of available materials and programs and inadequacies in present development in the overall field of environmental education. This work will serve as a base from which the development staff can take off in selecting areas for concentration. The work already done on this project indicates a substantial need in the area of social aspects of environmental problems and solutions, and by the time the project is completed (September 1971), the needs will be more specifically described.

In addition to this base, the work done by two of the staff members of the proposed project on the book entitled The Environmental Problem: Hearings on the Environmental Education Act of 1970 (co-edited by Irving Morrissett and Karen B. Wiley, with a preface by John Brademas) will serve as an additional foundation for determining specific areas of need and possible directions for the activity development to take.

A number of organizations and individuals can offer their expertise and data banks on the substantive content of environmental studies. Both ERIC/SMAC and ERIC/ChESS have abstracted and indexed a large number of documents on the substantive content of environmental studies as well as educational questions associated with environmental studies programs. The library and faculty of the University of Colorado provide rich sources of information. Several faculty members, including Kenneth Boulding, Elise Boulding, and Lawrence Senesh, have agreed to lend their assistance to the student-developers. In addition, various businessmen and city government officials, both in Boulder and Denver, will be asked to assist the students in their studies of local problems as exemplars of generalized national and worldwide problems. Finally, two curriculum projects in the Boulder area are involved in developing environmental education materials with a natural and physical science perspective--the Biological Sciences Curriculum Study (BSCS) and the Environmental Studies (ES) project of the Earth Science Curriculum Project. We have contacted Robert Samples of the Environmental Studies project and Manert Kennedy of the Biological Sciences Curriculum Project. Both Kennedy and Samples have ageeed to offer their assistance to the project.

Personnel from BSCS and ES will serve in a consulting capacity, with major production work of the project being based on the resources of the SSEC staff, its Resource Center, and the students and classroom teachers involved with the project. The SSEC staff includes personnel with expertise and experience in curriculum development, curriculum analysis, evaluation, learning theory and pedagogy, classroom teaching at secondary and elementary levels, teacher training, and administration and management. SSEC staff members in addition to those specifically designated as staff of this project will contribute time, both in formal conslutation and informal discussions and "rap sessions," to helping the student-developers.

Ina Mullis (Phillips), one of the staff members of an SSEC-related project, the Protocol Materials Development Project, is also a graduate student in educational research, working under Gene V. Glass of the Laboratory of Educational Research at the University of Colorado. For her independent research project next year, she will design and conduct an evaluation of the overall project. She will also assist the student-developers with evaluation of their materials and design of the classroom trials.

The teacher-consultants will assist the students in understanding the problems of classroom instruction and, particularly in the case of the materials developed for fourth and fifth graders, they will help the student developers to translate their ideas into terms and activities appropriate for that age level. They will also assist the students with developing their teaching and observation skills for use in school trials of the materials.

The SSEC Resource Center will provide a rich source of ideas for content and pedagogy. The student-developers may draw on these in devising their environmental education units. The Resource Center contains more than 4,000 books and documents plus associated media in the form of records, films, filmstrips, tapes, and slides. These items include both published and unpublished innovative social science curriculum materials, evaluation documents, and various analyses, reports, and position papers. In addition, it contains a collection of commercially produced innovative textbooks and a variety of works on the social sciences and on education. The student-developers will be able to use these items as sources of new ideas about teaching strategies, content, and skills; also, they may build upon some of the existing materials in the Resource Center, refocusing them for specific use in the study of environmental problems.

The extensive nationaide contacts of the SSEC, through its membership and various teacher training programs, will provide another resource on which to draw. The SSEC's membership includes highly-respected authorities in education and the various social sciences, many of whom will be able to spend some time consulting with the project while visiting the Boulder area for other meetings. (Please refer to Appendix E for a list of the Consortium membership.) Through the numerous inservice teacher training workshops conducted each year by the SSEC, it will be possible to give the students opportunity to try their materials out on teachers from all areas of the country and obtain informal feedback on the potential use of the materials in other locales. In addition, these teachers will be able to witness the potential of using students more extensively in developing learning activities in their own schools and classes.

The Boulder Valley Public Schools will play a major role in the project, furnishing the student population from which the student-developers will be drawn, furnishing teacher-consultants for the development phase and teachers and classes for the school trial phases of the program. Richard G. Telfer, Director of Instruction for the Boulder district, has indicated that the flexible scheduling programs being instituted at Boulder High school and Fairview High School next fall will readily accommodate just this sort of program. The Boulder schools are also experimenting with cross-age helping programs in some elementary schools; several courses will be offered on ecology and environmental problems; and an ecology club is active in community programs. In addition to Telfer, we have spoken with several students and teachers who have expressed enthusiasm for the project. If the project is funded, specific cooperative arrangements will be made through Telfer. Past cooperative programs with the SSEC and the Boulder Valley schools, such as the Experienced Teacher Fellowship Program of 1968-69, have proven to be smooth-running and extremely fruitful for both organizations.

The Denver Public Schools will also be asked to cooperate in the school trials phases of the project. We have worked with the Denver system in several previous projects, including an Experienced Teacher Fellowship Program during 1969-70 and the Unified Science and Mathematics for Elementary Schools program.

We have also contacted the Golden Valley environmental education project in Minneapolis, Minnesota. Kathleen Murphy, director of the social studies portion of the Golden Valley program for next year, has agreed to try out the activities produced by this project, using their project's biology teachers to give feedback on the adequacy of the natural science content of our materials and their articularion with natural science-oriented curricula.

D. DESCRIPTION OF ACTIVITIES

Program and Schedule

The project will run from mid-August 1971 through mid-August 1972. The student-developers will participate as full-fledged staff members in all the phases of the project described below except the first, during which the student participants will be chosen. Section II-B of this proposal, describes the outcomes which this program is expected to produce. Though two specific phases of the program (Phases IV and VII) are designated as "evaluation" periods, throughout the project there will be continuing review, feedback, self-analysis, criticism, and modifications of the program as a whole, of the materials being developed, and of the work of individuals (including the adult staff members).

Phase I (late August-early September 1971)

Initial arrangements and preparatory activities: setting up operating procedures; pulling together intellectual organizers, lists of materials, and topics to serve as springboards for the thinking of the student-developers; selecting the student-developers; finalizing cooperative arrangements with the school districts and teachers involved.

Phase II (late September-early October 1971)

Planning: meeting with local advisory committee; development of program for overall evaluation of the project; development of conceptual framework for an overall environmental education program with a social emphasis; student familiarization with information on needs and gaps in environmental education; selection of specific activity topics to be developed within the conceptual framework; detailed schedule and procedural planning.

During Phase II, the staff will conduct a seminar to help get the students started on the year's work. This seminar will build upon intellectual organizers, materials lists, and environmental topics briefs pulled together by the staff during Phase I. The Environmental Problem: Selections from Hearings on the Environmental Education Act of 1970 will serve as a text-springboard for the discussions in the seminar. Some problems on the use of the Resource Center and other sources of ideas and information will be given to the students.

Phase III (October 1971-January 1972)

Development--first round: developing, testing, and revising of first two activities.

a) Development (October-November 1971): review available materials and resources for new ideas; student consulting and reading on substantive content; student observation of fourth- and fifth-grade classes; student consulting and

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reading on learning theory and other educational problems; construction of tentative outlines of the activities; exchange of outlines among professional staff, students, and teachers for critiquing; consultation on outlines; writing and media production of first drafts; exchange of first drafts among professional staff, students, and teachers for critiquing; revision of drafts and reproduction for trials.

b) First trials (December 1971): student consultation and reading on testing and evaluation; development of trial procedures and evaluation instruments; confirming specific arrangements with schools for trials; classroom trials, using as trials teachers the student-developers, the teacher-consultants, and other teachers not associated with the development phase; compilation and interpretation of the results.

c) Revision of units (December 1971-January 1972): using the results of the first trials, student-developers, professional staff, and teacher-consultants will revise activities again going through the exchange-critiquing process, and prepare for a second round of trials, of the revised versions.

d) Second trials (January 1972): modification of trials procedure and evaluation instruments if necessary; trials of the materials, again using student-developers, teacher-consultants, and other teachers, but different classes; compilation and interpretation of results. The two activities will not be revised immediately following these trials; they will be held until Phase VI and revised in final draft form at the same time as the other two-to-four activities, in order to allow for coordination and consistency in final format, style, etc.

Phase IV (early February 1972)

Mid-program evaluation: professional staff, student-developers, and teacher-consultants will take a few days to critique procedures and progress during the first stage of development and to make modifications in conceptual orientation, substance, and procedure, based on their experiences, which will facilitate the next stages of development. Though constant review and modification will take place throughout the program, these few days will provide a chance to "step back" and have a direct, critical, uncluttered view of the program at mid-term.

Phase V (February-April 1972)

Development--second round: developing, testing, and revising of next two-to-four activities. It is expected that the student-developers and the professional staff will be able to handle the development of more activities during this second round than during the first, for they will have accumulated a backlog of skills and understandings during the first round. If, however, some students are not able to continue on the project during the second semester and must be replaced by new student-developers, it may not be possible to develop all four additional activities, for the experienced students and professional staff will have to devote some time to training the new ones.

The procedure for development, trials, and revision of these activities will be essentially the same as that for Phase III, with, of course, appropriate modifications decided upon in the mid-program evaluation in early February. Initial development will occur during February and March, first trials will be in late March and early April, revisions will be made during April, and second trials will be held in early May.

Phase VI (May-July 1972)

Preparation of final drafts: using the data from the second trials and any other feedback that appears appropriate (such as comments from consultants and inservice teachers at teacher-training workshops in which the materials may be demonstrated), the staff will revise all the activities and prepare final, polished sample materials. These materials will be in a form ready for reproduction either for (1) extensive school trials and evaluation or for (2) mass production, possibly by a commercial publisher. Which of these two routes is followed will depend on what the Office of Environmental Education deems appropriate and the availability of funds. It is hoped that, no matter which course is taken, schools will be able to reproduce the materials on their own, if they wish, for use in their curricula.

Phase VII (July-August 1972)

Evaluation and final report: pulling together data and ideas and writing the final report on the project. The final report will cover three areas: evaluation of the project itself as a model for curriculum development; evaluation of the materials produced by the project; and a description and rationale of one or more overall integrated conceptual frameworks for environmental social studies courses.

a) Evaluation of the project as a model for curriculum development. The evaluation work of Ina Mullis and the observations and criticisms of the participants in the project, as well as of outside consultants, will be synthesized to form a comprehensive description and critique of the project. This part of the report will describe the project and cite its strong and weak aspects as a model of curriculum development involving students. It will also describe

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conditions necessary to replicate the model, suggestions for modifications in the model to make it usable in different situations, and suggested directions for possible continuation of the project in the future.

b) Evaluation of the materials produced by the project. Though no summative evaluation is planned, due to the limits of the budget and time, some useful evaluative data will be available from the limited school trials. The data which were used to revise the materials will also give useful information to potential users. These data can indicate what aspects of the earlier materials did not work and why they were changed in the ways they were; and they can point to those aspects of the materials which were found to work well and were therefore retained. This part of the report will also indicate what the future evaluation needs are.

c) Conceptual frameworks for environmental education. At the beginning of the project, the staff, students, and teachers will attempt to develop an integrated, overall picture of the concepts, skills, and relational understandings which should be included in a comprehensive course of study on the social aspects of environmental problems and solutions. During the development of specific activities within this framework, it is expected that the developers' ideas will be clarified and modified. The final report will include a description of one or more possible frameworks for organizing environmental studies curricula based on insights arrived at during the year's work.

Personnel

There are three categories of personnel for this project--professional staff, student-developers, and consultants. The staff members and student-developers will play extensive, central roles, while the group labeled "consultants" will devote smaller amounts of time to the project at strategic intervals.

Staff. The staff includes two co-directors and two associate directors. (Please see Appendix F for complete vitae of the persons mentioned below.) The co-directors will be responsible for administration and overseeing the work of the project. They will play a major role in giving overall shape to the conceptualization of the materials, in assisting the student-developers with problems of substantive content, and in acting as "sounding boards" and critics of the development work. Suzanne Wiggins Helburn and Irving Morrissett will be the co-directors.

Helburn has extensive experience in the area of curriculum development. She was co-director of the ECON 12 project, which developed an innovative economics course for twelfth graders, funded by the U.S. Office of Education and now being published by Addison-Wesley. While Professor of Economics at San Jose State College, Helburn was actively engaged with both students and colleagues in curriculum development. She was also the Director of the Economics Education Center at San Jose, in which capacity she was concerned with teacher education and economics course development at the college level.

Morrissett is currently Executive Director of the Social Science Education Consortium, Inc., Professor of Economics at the University of Colorado, and Associate Director of the ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/ChESS). He is a consultant to the Targeted Communications in Environmental Education project, a joint effort of the ERIC Clearinghouse in Science and Math Education (ERIC/SMAC) and ERIC/ChESS. He is co-editor of The Environmental Problem: Selections from Hearings on the Environmental Education Act of 1970.

The two associate directors, James O. Hodges and Karen B. Wiley, will work with the student-developers closely in all aspects of the project, acting both as teachers and co-workers. They will be responsible for the detailed operation of the program.

Hodges offers extensive experience in working with young people in developing instructional materials. During the past academic year he was in charge of an upper division interdisciplinary seminar at the University of Colorado. In this course, he assisted preservice teachers in developing inter-disciplinary social science instructional materials for elementary and secondary classroom use. This project had many operational similarities to the one described in this proposal. Hodges was previously a Staff Associate with the Social Science Education Consortium and has taught in two Experienced Teacher Fellowship Programs at the University of Colorado.

Wiley is currently coordinator of the Targeted Communications in Environmental Education project sponsored by ERIC/ChESS and ERIC/SMAC and funded by the U.S. Office of Education. She is also a Staff Associate/Editor with the Social Science Education Consortium and is presently working on her Ph.D. in political science at the University of Colorado. From 1966-69, she was a Research/Editorial Assistant with the High School Geography Project of the Association of American Geographers. Wiley is co-editor of the book The Environmental Problem: Selections from Hearings on the Environmental Education Act of 1970.

Student-developers. Six student-developers will participate fully in the project as paid junior staff members from the earliest stages of conceptualization of the materials through the final revision and report stages. Though the student-developers will be trainees, they will take part in all decision-making and will carry as much responsibility in seeing that the goals of the project are met as their skills and interests allow. Their interests and ideas will be major determinants of the specific foci of the units developed. The student-developers will use the staff and consultants to help them clarify and develop their ideas and to improve their skills in presenting and testing their ideas.

It is hoped that the students, staff, and teachers involved in the project will become a working team, with each member contributing his unique skills, knowledge, and sense of responsibility. The model for extensive student involvement as full-fledged partners in the curriculum development process is based on the experiences of several current SSEC staff who worked as junior staff members with curriculum projects earlier in their careers. In those positions, they were encouraged to take as much initiative and responsibility as they were able. The senior staff members directed and critiqued their work, while they--as "uninitiated" trainees, naive in the ways and jargon of the academic disciplines and world of professional education--were able to act as devil's advocates and questioners, as well as co-workers in the tasks of the projects. The depth and extent of the learnings from their experiences were truly great and required the pulling together of knowledge and skills from a variety of disciplines. Their traineeships also served to develop strong, ongoing interests in improving education. It is hoped that comparable experiences and outcomes can be promoted among the student-developers in this proposed project.

The student-developers will be selected during the first few weeks of the project. They will be 11th and 12th graders from the Boulder Valley School District.

Depending on the specific arrangements worked out with the Boulder schools, the students may receive course credit in communications arts and social studies for their participation in the project. Richard Telfer, of the Boulder Valley Public Schools, has indicated that released time arrangements should not be difficult because of the flexible scheduling programs which will be instituted in Boulder high schools next fall. The selection procedure, to be carried out by the staff of the project with the help of personnel from the Boulder schools, will involve interviews, recommendations from teachers and others with knowledge of the students' work (both in and out of school), reviews of any relevant work of the students (such as writing, artwork, participation in action programs), and interviews with parents to ascertain their feelings about their childrens' participation in the project.

The project staff will look for a variety of skills and characteristics in selecting the student-developers, including media skills, writing skills, analytical abilities, creative ability ("idea men"), action orientations, contemplative orientations, and so forth. Both students interested in the natural-physical sciences and students interested in the social sciences will be sought, even though the emphasis of the project will be on social aspects of environmental problems. The students' school records (grades) will not necessarily be a consideration; we will depend more on recommendations of teachers and non-school personnel about the potential and special talents of the students. The one requirement which must be satisfied by all student-developers is that they have a strong, demonstrated interest in environmental problems which will sustain them for the duration of the program.

Consultants There are several categories of consultants which will help with the project: teacher-consultants, SSEC staff members, trials teachers, and outside consultants. The consultants will be called upon to offer their expertise in specific areas at critical junctures in the work of the project. They will be asked to assist the students on matters of substantive content, pedagogy, testing and evaluation, resource use, and so on.

The two most extensively involved categories of consultants will be the teacher-consultants and the SSEC staff. The teacher-consultants will include one 11th or 12th grade teacher and one fourth or fifth grade teacher from the Boulder district. They will give approximately one full day a week to assist the student-developers with pedagogical problems and to review their work and make suggestions for improvement. They will also use the student-developed materials on a trial basis in their classes. Whether the teacher-consultants will be paid on a released-time basis or work on their off-hours as consultants will depend on the specific arrangements the Boulder Valley Public Schools are able to make in regard to class schedules and teaching loads.

The staff of the SSEC and associated projects will be constantly available to help the students, both formally and informally, on the whole gamut of problems which they will encounter during the course of the project. The various kinds of assistance which SSEC staff members will give are described in Section II-C, Resources.

We have allowed for 24 half-days of pay for trials teachers. In addition to the trial teaching of the units by the student-developers and the two teacher-consultants, several "outside" teachers will be asked to use two-day to two-week activities in their classes. This will provide for a limited amount of feedback from people who do not have a "vested interest" in the materials.

The last category of consultants is "outside consultants." These will include subject matter specialists, curriculum developers, professional educators, and others, depending on the specific information needs of the development team. Some of these consultants will be drawn from the SSEC's nationwide membership (see Appendix E), and will hopefully be able to combine consultations with the student-developers with other trips made to the Boulder area on SSEC business. A number of outstanding authorities in various relevant fields (some of whom are also Consortium members) are already living in the Boulder area. We have contacted several of these people about serving on a local advisory committee, which will meet at intervals during the year for brief reviews of the student-developers' work; they will also be asked individually to consult on specific matters with the students. The local people who have been or will be asked include Elise Boulding* (Associate Professor of Sociology at the University of Colorado), Kenneth Boulding* (Professor of Economics at the University), Abraham S. Flexer (Professor of Molecular, Cellular, and Developmental Biology at the University), David Hawkins (Director of the Mountain View Center in Environmental Education and Professor of Philosophy at the University), Nicholas Helburn* (Professor and Chairman of the Department of Geography at the University of Colorado, Director of ERIC/ChESS, and former Director of the High School Geography Project), Manert Kennedy* (Associate Director of the Biological Science Curriculum Study), Max Peters (Dean of the School of Engineering at the University), Robert Samples* (Director of the Environmental Studies project and former Associate Director of the Earth Science Curriculum Project), and Gilbert F. White (Director of the Institute of Behavioral Science and Professor of Geography at the University).

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*The persons whose names are asterisked have already agreed to consult with the project.

E. REPLICABILITY

Both the curriculum development model itself and the materials produced by the project will be replicable elsewhere in the country.

The materials, of course, will lend themselves easily to use on a widespread basis in schools, since they will be in concrete written and multi-media form, accompanied by detailed teaching guides and designed to be inexpensively reproduced. This curriculum development model could be applied to at least four curriculum development situations where financial, consultation, and physical resource elements are comparable to those available to this project. These situations provide the conditions necessary for replicating this project. They are university-based curriculum-development projects funded by government and private foundations; commercially sponsored curriculum development projects; curriculum development conducted by State departments of education; and curriculum development conducted by the central offices of school districts. These four different types of curriculum development operations would have both the funds and the access to widely-dispersed consultative and materials resources needed to complete such a project. However, generally they do not employ students as part of their developmental team. Ordinarily student involvement is limited to providing feedback on course effectiveness in the later trial stages of curriculum development. We think it would be desirable for such organizations to develop work-study programs which provide the mechanisms for intimate and meaningful involvement of students throughout the process of conceptualization, development, and testing. We plan to demonstrate the degree of feasibility of such programs through this project.

This curriculum development model might also be adapted for use by school districts and individual schools involved in curriculum or course revision. Although districts usually do not have the financial resources to develop much in the way of materials, they are constantly involved in the reorganization of learning. Furthermore, with the growth of open schools and accountability, there is an increasing need for schools to develop special modules for use in their own unique settings. Involvement of students in this work would be very beneficial, if some way could be found to provide students with adequate training and support.

Finally, the model might be adapted for use outside formal education. Education goes on outside schools. The media industries and public interest action groups are constantly involved in informing and influencing various audiences. Students might prove very useful on teams producing educational programs for such

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non-school audiences. Such opportunities for young people could also eventually open up new career and career training opportunities for high school students.

IV. IDENTIFICATION OF SPONSOR AND INDIVIDUAL RESPONSIBLE FOR GRANT FUND AWARDED

A. SPONSORING ORGANIZATION

The Social Science Education Consortium, Inc., located in Boulder, Colorado, is the sponsor of the proposed curriculum development project. The primary purpose of the SSEC is to facilitate communications and interaction among all segments of the educational community concerned with social studies/social science education. In order to do this, the SSEC conducts a variety of programs for collecting, processing, and disseminating innovative ideas. These programs, as well as the underlying philosophy of the SSEC, are described in the "Overview of the Social Science Education Consortium," found in Appendix A, and SSEC Newsletters #9 and #10, in Appendix B.

The SSEC is a not-for-profit corporation, incorporated under the laws of the State of Indiana. Documentation of the SSEC's non-profit status in included in Appendix G.

B. INDIVIDUAL RESPONSIBLE FOR GRANT FUNDS AWARDED

Irving Morrissett, Executive Director of the Social Science Education Consortium, Inc., 970 Aurora, Boulder, Colorado, will be the individual responsible for disbursement and accounting of the Federal funds requested.

APPENDIX B

Documents Related to Arrangements With Boulder Valley Public Schools

B-1	Original letter of endorsement from Eugene R. Gullette
B-2	"Description of Environmental Education Curriculum Development Project"
B-3	Letter to Melvin Wiesley regarding teacher consultants
B-4	Letter to Arthur Axelson regarding arrangements for student developers
B-5	Letter to principals of BVPS high schools regarding student developers and teacher consultants
B-6	"Expected Student Learnings"
B-7	"Teacher Consultant Job Description"
B-8	Letter from John Hoback regarding credits for student developers

BOULDER VALLEY PUBLIC SCHOOLS

Barnard D. "Pat" Ryan, *Superintendent*
P.O. BOX 11
BOULDER, COLORADO 80302
(303) 442-6931

EUGENE R. GULLETTE
Assistant Superintendent for Instruction

June 25, 1971

Mr. Paul Cromwell
Office of Environmental Education
Department of Health, Education, and Welfare
Washington, D.C.

Dear Mr. Cromwell:

This is to confirm that Boulder Valley Public Schools has agreed to cooperate, within the parameters described in the proposal, on a project sponsored by the Social Science Education Consortium, entitled "Development of Environmental Education Activities Emphasizing the Social Sciences and Using Students as Curriculum Developers." The role of the Boulder Valley Public Schools will involve no financial commitment, but will include assisting the SSEC in finding students and teachers to work on the project and a small number of classrooms for trials of the materials.

Specific working arrangements between the District and the SSEC will be developed during the latter part of the summer 1971.

Sincerely,

Eugene R Gullette

Eugene R. Gullette
Assistant Superintendent
for Instruction

ERG:bjs

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Draft
Karen Wiley
8-13-71

DESCRIPTION OF
ENVIRONMENTAL EDUCATION
CURRICULUM DEVELOPMENT PROJECT

The Boulder Valley Public School District has agreed to cooperate with the Social Science Education Consortium in an environmental education curriculum development project during the calendar year August 1971 to August 1972. The funds for this project were recently awarded the Consortium by the Office of Environmental Education of the U.S. Office of Education, U.S. Department of Health, Education and Welfare.

The program is designed to accomplish two broad objectives:

(1) Development, testing, and revision of four to six learning activities focusing on the social aspects of environmental problems. (Half of these will be designed for use at the fith-sixth grade level and half for use at the high school level. They will vary in length from a few days to two weeks.)

(2) Experimentation with a model of extensive student involvment in curriculum development. (Six high school students will be selected to participate on a work-study basis as full-fledged, paid members of the development team. They will participate in the conceptualization, development, testing, evaluation, and revision of the curriculum materials as well as in the management and evaluation of the project itself. The students will not only make substantial inputs for the program; they will receive the benefits of an exceptional learning experience which will involve the development of knowledge and skills in communication, organization, social science, and natural science.

In addition to the six student developers, the staff will include Irving Morrissett and Suzanne Wiggins Helburn as co-directors, and Karen Wiley and Regina Greene as staff members. The professional staff will act primarily as resource persons and advisors, taking a greater or lesser role in guiding the project depending on the needs and abilities of the students.

Boulder Valley District's role will include helping in the recruitment and selection of the student developers, making arrangements for the students' work-study schedules and credit, assisting in the recruitment of two teacher-consultants from the district and making arrangements for their released time, and arranging for classroom trials of the materials.

The project's most immediate needs involving the District's administration and faculty are the following:

(1) Development of procedural arrangements for the recruitment and selection of student developers. Attached is a description of the qualities and abilities needed in the total student development team. We would like your suggestions about how to locate students with these attributes and inform them of how to apply for the program. It was suggested that an announcement be made in each high school in the Boulder Valley District during the first week of school. After-school meetings could be held by project staff members to describe the project and application procedure to interested students.

(2) Decision by the principals on the amount and subject area(s) of course credit which might fairly be given to the student developers. It has been suggested that course credit might be offered for half of the students' working time and salary for the other half. The project proposal anticipates that students will work 50% to 40% time for a full calendar year.

(3) Feedback from the principals on how best to go about arranging students' class and work schedules. It is hoped that all students will be able to work the same hours, in order to develop group cohesiveness and mutual learning. The staff is also concerned that the students be able to work during "prime time," rather than having to relegate their activities on the project to the late, "tired" hours of the afternoons and evenings.

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(4) Suggestions on possible teacher consultants. A description of the roles and qualifications of the teacher consultants is attached.

(5) Arrangements for using teacher-released time or outside school hours? (The project's budget allows for two teacher consultants two days per month at $75/day for 12 months. However, we will probably use the teachers only during the academic year, thus allowing more time per month. If released-time arrangements could be made, perhaps they could spend even more time on the project.)

KW:clm

B-3

Social Science Education Consortium, Inc.

[illegible] BOULDER, COLORADO

August 25, 1971

Melvin L. Wiesley
Director of Elementary Education
Boulder Valley Schools
P. O. Box 11
Boulder, Colorado 80302

Dear Mr. Wiesley:

The Boulder Valley School District has agreed to cooperate with the Social Science Education Consortium (SSEC) on an environmental education curriculum development project funded by the U.S. Office of Education for the year August 1971 to August 1972. Enclosed with this letter you will find a flier describing the project and a job description for the two teacher consultants we are seeking.

The teacher consultants will act as advisors to the development team, which will be composed of four SSEC professional staff members and six high school students from the Boulder Valley District. We would like your help in locating one of these teacher consultants--the one from the upper elementary level. Two or three of the learning activities developed by the team will be designed for use at the fourth, fifth, or sixth grade level. It is hoped that one of your energetic, innovative teachers will be able to advise us as these activities move through the conceptualization-development-testing-revision process. The time and financial arrangements, as well as the desired teacher consultant characteristics and abilities are described in the enclosure. Can you suggest some possible candidates for this position from whom we might choose? Would it be appropriate for us to contact your elementary principals directly or through you to ask for their suggestions on possible teacher consultants, also?

If you have any further questions about the project, please do not hesitate to contact me, Karen Wiley, or Regina Greene at the SSEC. Phil Cohen, Sharon Christman, Dick Telfer, and Gene Gullette, of BVPS, are also familiar with the project and can answer any questions you might have.

Thank you very much for your cooperation.

Sincerely,

Suzanne W. Helburn

Suzanne Wiggins Helburn
Co-director, Environmental
Education Curriculum
Development Project

SWH:clm
encl.
cc: G. Gullettee, R. Telfer, P. Cohen, S. Christman, R. Bachus

SSEC Social Science Education Consortium, Inc.
IRVING MORRISSETT, EXECUTIVE DIRECTOR • [illegible] • [illegible]

August 25, 1971

Arthur E. Axelson
Director of Secondary Education
Boulder Valley Schools
P. O. Box 11
Boulder, Colorado 80302

Dear Mr. Axelson:

The Boulder Valley School District has agreed to cooperate with the Social Science Education Consortium, on an environmental education curriculum development project funded by the U.S. Office of Education for the year August 1971-August 1972. Enclosed with this letter you will find a flier describing the project, a description of the broad learning objectives for the six high school student developers and a job description for the two teacher consultants.

We would appreciate your assistance in getting the project under way. Presently one of the things we are concerned about is arranging for course credit for the six high school students. We have funds for paying the students for 16 hours' work per week. However, it was suggested in a meeting with Mrs. Gullette and Leifer that the students receive course credit for a portion of that time, if such an arrangement were acceptable to their principals. One possible arrangement would be for the students to receive one social studies credit--which, we understand, would entail five hours work per week--and be paid for the remaining eleven hours. The kinds of knowledge, skills, and experiences which the students would gain in working on the project are described on the enclosure, "Expected Student Learnings."

A second item on which we need the principals' assistance is the matter of rearranging class schedules once the six student developers are chosen. According to the schedule for student selection, we will choose the six students before the end of September. At our meeting Monday, August 23, with the Boulder Valley District subject matter consultants, we were told the students could rearrange their schedules after their selection so that they will all be available for work at the same time, probably in the afternoons. What procedure should we follow once the six students are chosen in having their schedules rearranged so that they may be released in the afternoons?

A third matter on which the principals can help is in the location of a teacher consultant from the high school level. (We are contacting Mr. Wiesley about the elementary consultant, but, of course, any ideas you have there would be welcome, too.) The teacher consultants as described in the enclosures will act as advisors to the development team. They will work at the same time of day as the students, but no more than ½ day a week during school hours. The project will pay the school district for a substitute during these times. For any additional time after school or on the weekends they will be paid an hourly rate for consulting. These arrangements will be made with the teacher and his/her principal after the consultants are selected. We would like your suggestions for the teacher consultant at the secondary level.

Fourth, and perhaps most important, we would like the cooperation and assistance of the principals in recruiting applicants for the six student developer positions. We would like to have the two informational meetings, to be held on September 7 and 9, announced during the daily announcements on September 6, 7, and 9 at each of the high schools. We have enclosed a brief script for these announcements. The subject matter consultants will be distributing to the faculty multiple copies of the fliers describing the project plus application forms. Faculty will be asked to mention the project to their students if they wish and make the fliers and forms available to them. We would like also to have the fliers and application forms available in the principal's office in each high school and would like to use the principals' offices for collection points for completed application forms.

You will note that we have not adequately completed the last paragraph in the draft letter to the principals. That paragraph describes the procedure to be used in resolving questions and giving us feedback on how we should proceed. Would you prefer to put these items on the agenda of a principals' meeting in the near future and then inform us of their decisions and suggestions? Or should we contact each principal directly a few days after sending them the letter and enclosures? Or, should we follow some other procedure?

We will phone you in a few days to learn your reactions and suggestions for our next steps. If you have any further questions, please do not hesitate to contact me, Karen Wiley, or Regina Greene at the SSEC. Phil Cohen, Sharon Christman, Dick Telfer, and Gene Gullette of BVPS are also familiar with the project and can answer any questions you might have.

Thank you for your assistance.

Sincerely yours,

Suzanne W. Helburn

Suzanne Wiggins Helburn
Co-director, Environmental
Education Curriculum
Development Project

SWH:clm
encl.
cc: G. Gullette, R. Telfer, Phil Cohen, Sharon Christman
Ralph Bachus

S EC
Social Science Education Consortium, Inc.
IRVING MORRISSETT, EXECUTIVE DIRECTOR • SOCIAL SCIENCE BUILDING • 970 AURORA, BOULDER, COLORADO 80302

August 27, 1971

Carroll Martin
Nederland Jr.-Sr. High
Nederland, Colorado

Dear Mr. Martin:

The Boulder Valley School District has agreed to cooperate with the Social Science Education Consortium on an environmental education curriculum development project funded by the U.S. Office of Education for the year August 1971-August 1972. Enclosed with this letter you will find a flier describing the project, a description of the broad learning objectives for the six high school students who will be involved, and a job description for the two teacher consultants.

We would appreciate your assistance in getting the project under way. Our immediate needs involve recruitment of student developers, arrangements for course credit and reorganizing of class schedules for the six students, and selection of the high school teacher consultant and arranging for his/her released time.

1. Recruitment of student developers: we would like the cooperation and assistance of the principals in recruiting applicants for the six student developer positions. We would like to have the two informational meetings described in the flier--to be held on September 7 and 9--announced during the daily announcements on September 6, 7, and 9 at each of the high schools. The faculty will receive multiple copies of the fliers describing the project, plus application forms for students they wish to alert to the project. We would like also to have the fliers and application forms available in the principal's office of each high school and would like to use the principals' offices for collection points for completed application forms.
2. Course credit: the project has funds for paying the students for 16 hours' work per week. However, it was suggested in a meeting with Mssrs. Gullette and Telfer that the students receive course credit for a portion of that time, if such an arrangement were acceptable to their principals. One possible arrangement would be for the students to receive one social studies credit for five of the weekly hours and be paid for the remaining eleven hours. The kinds of knowledge, skills, and experiences which the students would gain in working on the project are described on the enclosure, "Expected Student Learnings."
3. Class schedules: Once the students are chosen it may be necessary to rearrange some or all of their class schedules. It would be best for all the six students to work during the same hours, preferably in the afternoons from 1:00 to 4:15 or so. If some students have initially scheduled classes during

that time, what procedure should be followed to reschedule their classes to the morning hours?

4. Teacher consultants: the project needs two energetic, innovative teachers--one from the upper elementary level and one from the high school level--to act as advisers to the development team. The desired characteristics and abilities are described in the enclosed teacher consultant job description, along with time and financial arrangements. Do you have any suggestions for likely candidates? Do you have any objections to the released-time arrangements proposed?

Phil Cohen of Boulder Valley Public Schools, or Karen Wiley or Regina Greene of SSEC will phone you within the next few days to get your responses and suggestions to the items mentioned in this letter. If you have any further questions, please do not hesitate to contact me, Karen Wiley, Regina Greene at the SSEC, or Phil Cohen at BVPS. Sharon Christman, Dick Telfer, Gene Gullette, and Art Axelson of BVPS are also familiar with the project and can answer most questions you might have.

Thank you for your assistance.

Sincerely yours,

Suzanne Wiggins Helburn
Co-director, Environmental
Education Curriculum
Development Project

THE ATTACHED LETTER WENT TO THE FOLLOWING PEOPLE

John Hoback, Principal
Boulder High School
1604 Arapahoe Avenue
Boulder, Colorado 80302

Keith Chambers, Principal
Fairview High School
6096 Baseline Rd.
Boulder, Colorado 80302

Herb Wenger, Principal
Broomfield High School
Broomfield, Colorado

Bob Schreiner
Lafayette Jr.-Sr. High
101 E. Baseline Rd.
Lafayette, Colorado

also principal of Louisville Sr-Jr Hi

Carroll Martin
Nederland Jr.-Sr. High
Nederland, Colorado

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EXPECTED STUDENT LEARNINGS

SSEC/BVPS Environmental Education Curriculum Development Project

The six student developers in this project will participate as decision-makers and doers in all aspects of the project. As full-fledged, responsible partners in the development process, they will gain experience, skills, and knowledge in:

1. communications: students will be involved in expressing their ideas in writing, orally, and possibly through sound film and other media. They will develop materials which motivate students and communicate sound learning experiences to them. They will develop clearly expressed instructions to teachers and others for the use of those materials. And they will develop their skills of inter-personal communication through interaction with the student and professional staff of the project in meetings and everyday conversation and memo-writing.
2. organization and management: students will participate in setting priorities,,allocating tasks, funds, and responsibilities, setting up schedules for the accomplishment of the project's goals and seeing that those goals are met. They will also be involved in designing ways of organizing classroom and community activities and in carrying out those activities.
3. natural and social sciences: students will be immersed in the content and methodology of the natural and social sciences as they relate to environmental problems. They will develop an overall conceptual framework in the early stages of the project, which will undoubtedly grow and change as they progress on the detailed work of developing learning activities. This conceptual framework will contain a variety of powerful intellectual organizers (such as input-output systems, cost-benefit analysis, transactions theory) which are useful in handling many kinds of data. As the students develop the four to six learning activities, they will become familiar with a number of research techniques (such as surveying, interviewing, attitude measurement instruments) employed by the sciences. Some of these may be incorporated into the learning activities developed,

while others must be learned by the students sufficiently for them to understand data derived from them which they may wish to incorporate into the activities.

4. education: students will also be constantly immersed in a variety of educational questions, particularly those concerned with curriculum rationale and objectives, and teaching-learning strategies. Their perspective from the students' role will broaden to include an understanding of the roles of teachers, administrators, and other educational decision-makers. They will gain a working knowledge of the complexities of deciding what to teach and how to teach it.
5. resource use: students will develop skills and insights into using educational and community resources. They will gain extensive experience in ferreting out needed information and guidance from both human and other resources.

Each of the six students will be encouraged to pursue most energetically one or a few of the above areas in which his interests and abilities are strongest. However, all students will gain some experience in all of the areas.

FW:clm

B-7

TEACHER CONSULTANT JOB DESCRIPTION

Two teacher consultants will act as advisors for the student developers:

1. an elementary teacher familiar with 4th, 5th, and 6th grade materials.
2. a secondary teacher with a more academic orientation, preferably specializing in the social sciences.

Both consultants need experience in constructing classroom activities and curriculum. They will

1. react to the ideas of the student developers.
2. suggest alternative methods.
3. advise the development team on the practicality of the activities.
4. be asked for feedback on the teacher's job.
5. possibly be observed in their classes by the student developers.
6. be familia. ith a variety of classroom strategies and innovative techniques which they adapt to varied classroom situations.
7. and should be skilled in individualizing instruction.
8. if possible, be aware of school district social studies curricula and activities.

The teacher consultants may also be the trial teachers for testing the new materials developed by the student team.

The teacher consultants will spend the equivalent of two to four eight-hour days per month working with the development team. Of this, no more than one half day per week will be taken during school hours, on a released-time basis. The remainder, should the teacher consultants be needed for more than these released-time hours, will be worked after school hours or on weekends. It is important that the teacher consultants be available at least some of the time during the students' regular working hours in the afternoons. It will be up to the teacher consultants and their principals, with the advice of the development staff, to determine exactly how much time should be spent away from the classroom on a released-time basis and how much should be spent in off-hours paid consulting.

The project will pay the school district for substitutes to take over the teacher consultants' classes during released-time working hours. Any additional work the teacher consultants perform will be paid directly to them at an hourly consulting rate.

BOULDER VALLEY PUBLIC SCHOOLS
Barnard D. "Pat" Ryan, *Superintendent*
P.O. BOX 11
BOULDER, COLORADO 80302
(303) 442-6931

BOULDER HIGH SCHOOL
1604 Arapahoe Avenue
Boulder, Colorado 80302
Telephone: 442-2430

October 22, 1971

Miss Reggie Green
855 Broadway
Boulder, Colorado 80302

Dear Miss Green:

The students enrolled in your experimental program entitled "Student Assisted Development of Materials in Environment and Social Studies" will receive one unit of credit in Applied Sociology at Boulder High School with a grade of "S" or "U".

Sincerely,

John R. Hoback

John R. Hoback
Principal

JRH:ls
cc: Lavere Wilson
Counseling Dept.

APPENDIX C

Documents Related to Recruitment of Student Developers and Teacher Consultants

C-1 "Student Development Team Description"

C-2 "Announcement for High School Principals to Include in Daily Announcements, September 6, 7, and 9"

C-3 News Release for Newspaper

C-4 News Release for Radio

C-5 Student Handout: "WANTED..."

C-6 Application Form

C-7 Letter Announcing Students Chosen to be Student Developers

C-8 Student Appointment Letter

C-9 Revised Teacher Consultant Job Description

C-10 Memo Regarding Teacher Consultant Jobs

C-11 Invitation Letter for Advisory Board Members

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STUDENT DEVELOPMENT TEAM DESCRIPTION

We are interested in selecting a team of six students including:

1. tenth, eleventh, and twelfth graders,
2. a mixture of males and females,
3. a variety of intellectual interests,
4. concern about education,
5. generally intelligent people but not necessarily with high grades in all subjects,
6. energetic, mature, committed, dependable and responsible people.

The group of students should have a balance of the following interests and talents to form a team with complementary abilities.

1. writing
2. graphics, art, photography
3. creativity
4. organizational abilities
5. action-oriented person
6. sensitive to human needs
7. analytical and conceptual skills
8. access to community resources

In addition to the above requirements for the team, we hope for a mixture of:

1. religious background
2. ethnic background
3. socio-economic background
4. rural and urban students
5. students from different high schools in the Boulder Valley Public School District.

RG:clm
8-20-71

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ANNOUNCEMENT FOR HIGH SCHOOL PRINCIPALS
TO INCLUDE IN DAILY ANNOUNCEMENTS
SEPTEMBER 6, 7, and 9

Do you want to participate in a work-study program developing curriculum materials for environmental education? There will be a meeting September 7 at 7:30 p.m. at Boulder High School and September 9 at 7:30 p.m. at Lafayette Junior-Senior High School for all 10th, 11th or 12th graders interested. If you cannot attend one of these meetings and are interested in applying, you can obtain further information in the principal's office.

RG:clm
8-25-71

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SSEC

Social Science Education Consortium, Inc.

IRVING MORRISSETT, EXECUTIVE DIRECTOR • SOCIAL SCIENCE BUILDING • 970 AURORA, BOULDER, COLORADO 80302

News Release
8/30/71
Regina Greene
(Newspaper)

WANTED: FOR A WORK-STUDY PROGRAM

HIGH SCHOOL STUDENTS TO DEVELOP CURRICULUM MATERIALS ON THE SOCIAL ASPECTS OF ENVIRONMENTAL PROBLEMS

-Who decided the automobile is the best means of transportation? When was this decided?

-If we build no more power plants after September 1, 1971, how will this affect you? a resident of Watts, California? a farmer in Iowa?

-Does the economic "growth ethic" necessarily affect our environment detrimentally?

-What is impure water?

-What role, if any, can the schools play in solving environmental problems?

During the 1971-72 school year and summer 1972, six Boulder Valley high school students, four staff members of the Social Science Education Consortium (SSEC), and two teacher-consultants from the Boulder Valley schools will work together developing curriculum materials focusing on questions such as these. The funds for this project were awarded the SSEC by the U.S. Office of Education under the Environmental Education Act of 1970.

The six students must be available to work afternoons, beginning at 1 p.m., Monday through Friday. Rearrangements of class schedules, if necessary, will be worked out with the students' principals once the team is selected.

Social Science Education Consortium
News Release 8/30/71
Regina Greene

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The student developers will work approximately 16 hours per week on the project through the summer of 1972. They may be able to receive course credit for part of their time spent on the project, depending on the decision of their principals. For the remainder of their working time, the students will receive $1.75 per hour.

Two meetings will be held by the project staff to explain the project and the application procedure to interested students:

September 7, 7:30 p.m., Boulder High School
September 9, 7:30 p.m., Lafayette Junior-Senior
High School

It is important that prospective applicants attend one of these meetings to learn more about the project and to learn how to develop their applications to best show their abilities and the unique contributions they canmake to the project. Application instructions and forms will be available at these meetings, but they may also be picked up in the principal's office of each Boulder Valley high school or at the Social Science Education Consortium, 855 Broadway, Boulder.

The project has two main objectives:

(1) Development, testing, and revision of four to six learning activities focusing on the social aspects of environmental problems. (Half of these will be designed for use at the fifth-sixth grade level, and half for use at the high school level. They will vary in length from a few days to two weeks.)

(2) Experimentation with a model of extensive student involvement in curriculum development. (Six high school students will be selected to participate on a work-study basis as full-fledged, paid members of the development team. They will participate in the conceptualization, development, testing, evaluation, and revision of the curriculum materials as well as in the management and evaluation of the project itself. The students will not only make substantial inputs for the program; they will receive the benefits of an exceptional learning experience which will involve the development of knowledge and skills in communication, organization, social science, and natural science.)

Social Science Education Consortium, Inc.
IRVING MORRISSETT EXECUTIVE DIRECTOR • SOCIAL SCIENCE BUILDING • 970 AURORA BOULDER COLORADO 80302

News Release
8/30/71
Regina Greene (Radio)

W A N T E D: FOR A WORK STUDY PROGRAM

HIGH SCHOOL STUDENTS TO DEVELOP CURRICULUM MATERIALS ON THE SOCIAL ASPECTS OF ENVIRONMENTAL PROBLEMS

-Who decided the automobile is the best means of transportation? When was this decided?

-If we build no more power plants after September 1, 1971, how will this affect you? a resident of Watts, California? a farmer in Iowa?

-Does the economic "growth ethic" necessarily affect our environment detrimentally?

-What is impure water?

-What role, if any, can the schools play in solving environmental problems?

During the 1971-72 school year and summer 1972, six Boulder Valley high school students, four staff members of the Social Science Education Consortium (SSEC), and two teacher-consultants from the Boulder Valley schools will work together developing curriculum materials focusing on questions such as these.

For further information come to a meeting September 7, 7:30 p.m. at Boulder High School or September 9, 7:30 p.m. at Lafayette Junior-Senior High School. Application instructions and forms will be available at these meetings, but they may also be picked up in the principal's office of each Boulder Valley high school or at the Social Science Education Consortium, 855 Broadway, Boulder.

WANTED:

STUDENTS TO DEVELOP CURRICULUM MATERIALS ON THE SOCIAL ASPECTS OF ENVIRONMENTAL PROBLEMS

-Who decided the automobile is the best means of transportation? When was this decided?

-If we build no more power plants after September 1, 1971, how will this affect you? a resident of Watts, California? a farmer in Iowa?

-Does the economic "growth ethic" necessarily affect our environment detrimentally?

-What is impure water?

-What role, if any, can the schools play in solving environmental problems?

During the 1971-72 school year and summer 1972, six Boulder Valley high school students, four staff members of the Social Science Education Consortium (SSEC), and two teacher-consultants from the Boulder Valley schools will work together developing curriculum materials focusing on questions such as these. The funds for this project were awarded the SSEC by the U.S. Office of Education under the Environmental Education Act of 1970.

The project has two main objectives:

(1) Development, testing, and revision of four to six learning activities focusing on the social aspects of environmental problems. (Half of these will be designed for use at the fifth-sixth grade level, and half for use at the high school level. They will vary in length from a few days to two weeks.)

(2) Experimentation with a model of extensive student involvement in curriculum development. (Six high school students will be selected to participate on a work-study basis as full-fledged, paid members of the development team. They will participate in the conceptualization, development, testing, evaluation, and revision of the curriculum materials as well as in the management and evaluation of the project itself. The students will not only make substantial inputs for the program; they will receive the benefits of an exceptional learning experience which will involve the development of knowledge and skills in communication, organization, social science, and natural science.)

STUDENT DEVELOPMENT TEAM

The project needs six students to form an energetic, concerned, competent curriculum development team characterized by:

- *--a mixture of tenth, eleventh, and twelfth graders;*
- *--a mixture of males and females;*
- *--a variety of intellectual interests;*
- *--concern about education;*
- *--concern about environmental problems and their social ramifications;*
- *--intelligence (though not necessarily high grades in all school subjects); and*
- *--high energy, maturity, commitment, dependability, and responsibility.*

The group of students should have a balance of the following interests and talents to form a team with complementary abilities:

- *--writing skills (creative and technical);*
- *--graphics, art, photographic skills;*
- *--creativity;*
- *--organizational abilities;*
- *--action orientation;*
- *--sensitivity to human needs;*
- *--analytical and conceptual skills; and*
- *--access to community resources.*

In addition to the above requirements for the team, we hope for a mixture of:

- *--religious backgrounds;*
- *--ethnic backgrounds;*
- *--socio-economic backgrounds;*
- *--rural and urban students; and*
- *--students from different high schools in the Boulder Valley district.*

The six students must be available to work afternoons, beginning at 1 p.m., Monday through Friday. Rearrangements of class schedules, if necessary, will be worked out with the students' principals once the team is selected. The student developers will work approximately 16 hours per week on the project through the summer of 1972. They may be able to receive course credit for part of their time spent on the project, depending on the decision of their principals. For the remainder of their working time, the students will receive $1.75 per hour.

STUDENT APPLICATION PROCEDURE

Two meetings will be held by the project staff to explain the project and the application procedure to interested students:

September 7, 7:30 p.m., Boulder High School
September 9, 7:30 p.m., Lafayette Junior-Senior
High School

It is important that prospective applicants attend one of these meetings to learn more about the project and to learn how to develop their applications to best show their abilities and the unique contribution they can make to the project. Application instructions and forms will be available at these meetings, but they may also be picked up in the principal's office of each Boulder Valley high school or at the Social Science Education Consortium, 855 Broadway, Boulder.

APPLICATIONS ARE DUE AT 5:00 p.m. ON TUESDAY, SEPTEMBER 14. They may be turned in to the principal's office at any of the six Boulder Valley high schools or to the Social Science Education Consortium at 855 Broadway, Boulder.

After the written applications have been read, a number of students will be asked to come to the Social Science Education Consortium for interviews on Monday, September 20 and Tuesday, September 21.

The final selections will be made and all applicants notified by phone or mail by Friday, September 24. The six student developers will begin work on Monday, September 27. This first day will probably be spent in rearranging course schedules and handling other details with the students' schools.

For further information contact

Regina Greene or Karen Wiley
Social Science Education Consortium, Inc.
855 Broadway
Phone: 443-2211, extension 8155

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Environmental Education Curriculum
Development Project

STUDENT DEVELOPER APPLICATION FORM

NAME____

HOME ADDRESS__________________________________ ___________
street & number city

HOME PHONE______________AGE__________SEX______________

NAME OF PARENT OR GUARDIAN____________________________

SCHOOL__________________________________GRADE LEVEL__________

How would you rate yourself in each of the following areas? Place the numbers which describes how you see your abilities next to each category:

4 outstanding
3 O.K. (average)
1 not very good (below average)
0 no experience--don't know

(If you wish to elaborate or note any special attributes, use the space provided next to each category.)

		COMMENTS
____	technical/reportorical writing ability	____________
____	creative writing ability	____________
____	graphics	____________
____	drawing/painting	____________
____	photography	____________
____	creativity (in generating ideas--"idea man")	____________
____	creativity (in finding ways to solve problems, achieve desired ends)	____________
____	organizational abilities	____________
____	preference for action programs (participation in social or political action groups)	____________

_____ preference for head trips (intellectual or spiritual action) ______________________________

_____ sensitivity to human needs ______________________________

_____ dependability ______________________________

_____ analytical skills ______________________________

_____ conceptual skills ______________________________

_____ access to community resources (people, organizations) ______________________________

_____ willingness and ability to carry through on long-term projects ______________________________

What school subjects do you like best? ______________________________

____

least? ____

Would you rate yourself as a good student, fair student, or poor student? _____

____

With this application you received a description of the student development team (page 2 of pink sheets). The project needs a balance of interests, characteristics, and talents among the six members of the team.

How do you see yourself as a member of such a team? What abilities and interests can you contribute to the team? Do you have any experience in hobby, club, school, or work activities which might prove useful to the project? What special background or viewpoints might you add to the team? What strengths will you bring to the team? What weaknesses do you have which other team members' strength might balance? What experience, characteristics, interests, or abilities do you have, if any, which might be of benefit to the project but which are not among the kinds of things listed in the description of the student development team?

Write a short essay about yourself answering these questions. The essay should be approximately 250 words long.

REFERENCES

In this section, please list persons who are familiar with the abilities, interests, and characteristics you would be able to contribute to the team.

Teacher: Name____________________
School________________Phone__________
Subject____________________

Teacher: Name____________________
School________________Phone__________
Subject____________________

Non-school person: Name____________________
Address____________________
Phone____________City__________
How acquainted____________________

Student: Name____________________
Address____________________
Phone________________City__________

Other: Name____________________
Address____________________
Phone________________City__________
How acquainted____________________

Are your parents/guardian willing for you to participate in this project?______

YOU WILL BE NOTIFIED BY FRIDAY, SEPTEMBER 17, IF YOU ARE TO BE INTERVIEWED FOR THE TEAM.

KW:clm

C-7

LETTER SENT TO BVPS CONSULTANTS, ADMINISTRATORS, AND PRINCIPLES

September 29, 1971

Ralph Bachus
Science Consultant
Boulder Valley
  School District
1440 Walnut
Boulder, Colorado 80302

Dear Mr. Bachus:

The selection of the student developers for our Environmental Education Development Project has been completed. The following students have been chosen and have accepted:

Fairview High:	Jane Brunton Dan Bouricius Jon Rasmussen Steve McElroy Alan Heltzel
Boulder High:	Sheryl Wiggins Suzanne Bank Craig Holdrege

Three alternates were chosen:
Cindy Conarroe--Louisville
Pat Shaugnesse--Fairview
John King--Fairview

We would like to thank you for your cooperation and assistance in this matter and would also like to invite you to stop by and see us at any time. The students will be working with us from 1:00 to 4:00 each afternoon Monday through Friday at 855 Broadway.

Sincerely,

Suzanne Wiggins Helburn
Co-director

SWH:clm

C-8
STUDENT APPOINTMENT LETTER

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October 12, 1971

Susanne Bank
1615 Kalmia
Boulder, Colorado 80302

Dear Susanne:

This letter is to confirm your appointment as a member of the development team for SADMESS (Student Assisted Development of Material for Environmental and Social Studies). On the team with you there will be four staff members of the Social Science Education Consortium and seven other high school seniors.

The working hours for the project are from 1:00 p.m. until 4:15 p.m. Mondays through Fridays. For five of these sixteen hours you will receive one high school social studies credit or the equivalent, and will be paid for the reamining 11 hours a week at the rate of $1.75 per hour.

Vacation time and sick leave will each accrue at 3.2 hours a month. The vacation time should be taken during the term of the grant.

There are no insurance or retirement benefits for less than half-time employment, but you are covered under workmen's compensation.

You will be paid on the fifteenth and thirtieth of each month. Deductions will be taken for time off which is not covered by vacation or sick leave. We hope you will be prompt and dependable on the job as we have a huge task for the year and cannot afford unreliable members of the team.

We are looking forward to a productive year for the team as a whole and for each of us as individuals.

Sincerely,

Suzanne Wiggins Helburn
Co-director

SWH:clm

TEACHER CONSULTANT JOB DESCRIPTION

Two teacher consultants will act as classroom resource persons for the student developers:

1. an elementary teacher familiar with 4th, 5th, and 6th grade materials.
2. a secondary teacher with a more academic orientation, preferably specializing in the social sciences.

Both consultants need experience in constructing classroom activities and curriculum. They will

1. react to the ideas of the student developers.
2. suggest alternative methods.
3. advise the development team on the practicality of the activities.
4. be asked for feedback on the teacher's job.
5. possibly be observed in their classes by the student developers.
6. be familiar with a variety of classroom strategies and innovative techniques which they adapt to varied classroom situations.
7. and should be skilled in individualizing instruction.

The teacher consultants may also be the trial teachers for testing the new materials developed by the student team.

RG:clm
8-20-71

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Social Science Education Consortium
855 Broadway
443-2211 Ext. 8155

Memo

To: BVPS High School Social Studies Teachers

From: Staff of the Environmental Education Curriculum Development Project

Date: September 22, 1971

Subject: Teacher Consultant for Environmental Education Curriculum Development Project

The Boulder Valley Public Schools (BVPS) and the Social Science Education Consortium (SSEC) are cooperating on a project to involve high school students in curriculum development work in the areas of social and environmental studies. The project has two main objectives:

(1) Development, testing, and revision of four to six learning activities focusing on the social aspects of environmental problems. (Half of these will be designed for use at the fifth-sixth grade level, and half for use at the high school level. They will vary in length from a few days to two weeks.)

(2) Experimentation with a model of extensive student involvement in curriculum development. (Six high school students are being selected to participate on a work-study basis as full-fledged, paid members of the development team. They will participate in the conceptualization, development, testing, evaluation, and revision of the curriculum materials as well as in the management and evaluation of the project itself. The students will not only make substantial inputs for the program; they will receive the benefits of an exceptional learning experience which will involve the development of knowledge and skills in communication, organization, social science, and natural science.)

The development team will consist of the six high school students and four professional staff members from the SSEC. It will be assisted by two teacher consultants from BVPS - one from the elementary level and one high school social studies teacher. In addition the three BVPS secondary subject-matter (language arts, social studies, and science) consultants are assisting in coordination with the schools.

The teacher consultants will act primarily as classroom resource persons for the student developers, by

(1) reacting to the students' ideas on teaching strategies;
(2) suggesting alternative approaches;
(3) advising the team on the practicality of proposed activities;
(4) giving feedback on the teacher's job;
(5) possibly being observed "in action" in the classroom by the students; and
(6) possibly trying out the materials developed by the project in their own classes and giving feedback on their uses.

The teacher consultants should be familiar with the Boulder Valley school system and activities going on in it; should have an innovative bent and be familiar with a variety of classroom strategies; should be adept at recognizing and adapting teaching approaches to varying individual and group needs and situations.

The teacher consultants will work two to four days per month during the academic year. If possible, this will be on a released-time basis during regular school hours. However, if it is necessary for non-school time to be spent on the project, the teacher consultants will receive consulting fees. Arrangements for released-time will be discussed with the appropriate principals and other school personnel once the teacher consultants are chosen.

If you are interested in being the secondary social studies teacher consultant for this project, please phone Regina Greene, Karen Wiley, or Connie Maupin at the S.S.E.C. (443-2211, ext. 8155) by no later than 5 p.m., Wednesday, September 29. You will be asked to come for an interview with the professional and student staff members on Monday, October 4, at 4 p.m. at the S.S.E.C., 855 Broadway. The teacher consultants will be chosen that evening and all applicants notified the following day.

The first duty of the teacher consultants will be to join the staff for a weekend retreat on October 9-10 in the mountains. The purpose of the retreat is to explore the directions we want the project to take during the year; think through objectives, specific tasks, and scheduling; and examine the individual roles each of us can play and ways in promoting the smooth functioning of the team in

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accomplishing its objectives. Attendance at this retreat is, of course, a "must" for all of the project personnel.

If you cannot participate as a teacher consultant, but are nevertheless interested in staying in contact, or even being a trials teacher for the materials to be developed, we would like very much to hear from you, too. We would like to develop as much school and community involvement as possible in the project.

KW/pb

C-11

ADVISORY BOARD INVITATION

Social Science Education Consortium, Inc.

IRVING MO T, EXECUTIVE DIRECTOR • SOCIAL SCIENCE BUILDING • 970 AURORA, BOULDER, COLORADO 80302

August 27, 1971

Professor R. Curtis Johnson
Chemical Engineering Department
EC OT 3-6
University of Colorado
Boulder, Colorado 80302

Dear Curt:

The Social Science Education Consortium, Inc. recently received a $50,000 grant to conduct an environmental education curriculum development project in cooperation with the Boulder Valley Public Schools during the calendar year August 1971-August 1972. The funds for this project were awarded by the Office of Environmental Education of the U.S. Office of Education under the terms of the Environmental Education Act of 1970.

Last May we invited you to participate in this project as a member of the Advisory Board if the project were funded. The purpose of this letter is to bring you up to date on the project and extend a formal invitation to you to become a member of the Advisory Board.

As a member of our Advisory Board, you will have the unique experience of working with six high school students who will participate on a work-study basis as fullfledged paid members of the development team. The students will take part in the conceptualization, development, testing, evaluation, and revision of the curriculum materials as well as in the management and evaluation of the project itself. In addition to the six student developers, the staff will include Irving Morrissett and Suzanne Wiggins Helburn as co-directors, Karen Wiley and Regina Greene as staff members, and two teacher consultants from Boulder Valley Public Schools. The professional staff will act primarily as resource persons and advisors, taking a greater or lesser role in guiding the project depending on the needs and abilities of the students.

Throughout the year the team will develop, test, and revise four to six learning activities focusing on the social aspects of environmental problems. Half of these will be designed for use at the fifth/sixth grade level and half for use at the high school level. They will vary in length from a few days to two weeks.

The staff has already begun working out arrangements for the student selection process with the Boulder Valley Public Schools and it is expected that the six student developers will be ready to begin work by the end of September. The two teacher consultants for the project will be chosen after the students have been selected and with the assistance of the students. The first few days after the students join the team will be taken up with setting up their learning lab and "settling in." Then students and professional staff will dive into the tasks of conceptualization and planning of the materials to be developed.

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We would like to begin now, with your help, laying the groundwork for this last-mentioned activity. At the first advisory board meeting on Monday, September 13, we would like to hear your ideas about
(a) what might constitute the substantive content of learning materials focusing on the social aspects of environmental problems;
(b) what are some powerful intellectual organizers useful for thinking in general about environmental problems; and (c) what other kinds of learning should the project try to meet. The meeting will be from 12:00 until 2:30 at the SSEC's new office at 855 Broadway. If this time is inconvenient for you, please send us your schedule and we will try to find a better time acceptable to all. Lunch will be provided by the project.

The responsibilities of the Advisory Board throughout the year will include:

1. reacting to the ideas of the development team.
2. giving input on the major aspects of environmental problems to be considered. This will involve identifying the problems, suggesting intellectual organizers/conceptual structures for dealing with these problems, and suggesting methodological techniques for examining these problems.
3. helping to set the intellectual context for the development team. The six student team members will themselves be involved in an academic course and should finish the year with a frame of reference for working with environmental problems.
4. suggesting additional resources for the development team.
5. giving insights into the curriculum development process.

The duties of the Advisory Board will be discharged at five meetings set for mid-September, early October, early December, February, and May. The specific times for these meetings will be arranged at the first board meeting on September 13. The meetings will last about 2-1/2 hours (or less) each and include luncheon or dinner provided by the project.

Advisory Board members will have the opportunity for additional involvment but no obligation to participate beyond the five scheduled meetings. You may choose to read and critique materials developed by the team or to work with the six high school students in any way you see fit.

We hope that you will be able to participate in this project, which we anticipate will be an exhilerating experience in cross-age helping for all of us.

Sincerely,

Suzanne Wiggins Helburn
Co-director, Environmental
Education Curriculum
Development Project

Irving Morrissett
Co-director, Environmental
Education Curriculum
Development Project

APPENDIX D

Orientation Documents

D-1 Calendar for first two weeks

D-2 Discussion Questions and Discussion Starters

D-3 BSCS Curriculum Development Model materials

D-4 ES Curriculum Development Model materials

D-5 Richard Rocchio group process materials

The Discussion Group
Group Process Evaluation Scale
"Here and Now" Versus "There and Then"
Giving and Receiving Feedback
Skill of Communicating with Other People
Objectives
Force Field Analysis

D-6 Agenda topics for retreat

Possible Agenda Topics I
Possible Agenda Topics II
Possible Agenda Topics III
Other Possible Agenda Topics

D-1

SADMESS CALENDAR

Tuesday, September 28

Nitty-gritty (W-4's, retreat plans, etc.)

What is environmental education?

Wednesday, September 29

What are our goals and objectives for the year?

Rocchio--1:30 to 3:30

Thursday, September 30

Goals and objectives (cont'd.)

Rocchio 1:00 to 3:00

Friday, October 1

1-2 Lunch party: What's SSEC and ERIC?

2-3 Rap with Irving

3-? Discussion with Howard Mehlinger about curriculum development

Monday, October 4

Group process goals and objectives for the year

Rocchio 1-4

Robert Fox consult on group process and curriculum development

Tuesday, October 5

Curriculum development--how?

Questions for BSCS and ES visits

Wednesday, October 6

Visit BSCS 1-4

Thursday, October 7

Visit ES 1:30--4:00

Friday, October 8

What are the curriculum development models we might use? Do we want to follow any?

Rocchio--3-4

Saturday, October 9 and Sunday October 10

Retreat

DISCUSSION QUESTIONS

Everything that we learn is only real to the degree that it contributes to what we are. Direct knowledge of ourselves, the reality of the world that we live in, and the facilitation of our inner growth and change are the ultimate goals of education. For the most part, self knowledge has been limited to mysticism, psychoanalysis, and various beyond-the-fringe activities; and education has been limited to a culturally determined range of ideas and techniques. We have been estranged from knowledge of ourselves; it is no wonder that we are left empty by the present educational process, both in and out of school.

WORDS RELATED TO EDUCATION FOR CLASSIFICATION EXERCISE - DISCUSSION STARTER - "What's Education?"

Teaching
structuring
assisting
educating
explaining
showing
answering
persuading
instructuring
informing
punishing
suggesting
advising
leading
schooling

discussing
interacting
believing
perceiving
knowing
growing
learning
investigating
thinking
searching
discovering
experiencing
studying
asking

9-28-71
SADLESS

DISCUSSION STARTERS

WHAT IS ENVIRONMENTAL EDUCATION?

Instructions: In the space to the left of each scenario below, write "yes" if you think it is environmental education and "no" if you think it isn't.

Mr. Rotunda's geography class did a role playing activity for one week. Each member of the class played a different type of person interested in the use of national forest lands in the state: a member of the Audubon Society, the president of a large paper corporation, a forest ranger, a professor of ecology at a state university, a Forest Service administrator, a congressman, etc. As the simulation progressed, the students found themselves forming interest groups. Each group did a day of research in the library preparing their cases for presentation to the three-man special administrative board (also played by students) set up by the Forest Service to resolve the controversy. The cases were presented to the board, which then decided that the lumbering company could cut timber from certain restricted areas, but only under a number of limiting conditions. Following the announcement of the decision, on the last day of the activity, the class discussed what went on during the simulation, what they had learned about the land-use problem, and what generalizations they could make on the basis of what they had learned about land-use and about human interaction. On the six-weeks exam, several weeks later, Rotunda asked several questions related to the role playing activity: How many acres of woodlands are there in the U.S.? When was the Forest Service founded? and, an essay question, What were the causes of the conservation movement of the early twentieth century?

Miss Snively was an out-of-classroom experiences fanatic. To make education relevant, the children should be exposed to the real world. She took her fifth-grade class to the Watts-Hardy plant on Tuesday and a dairy farm east of Boulder on Wednesday. On Thursday, the class applied what it had learned by studying milk production in Switzerland, Tibet, Chile, and East Africa. Friday, Snively conducted a lesson on the basic food categories, including milk products, and set up a chart on which each student could put a star for each day he or she ate food from each of the basic categories.

Mr. Tyran's social studies class spent one week studying the structures, philosophy, and functions of local government within the federal system of the U.S. On the following Tuesday evening, they visited a city council meeting at which control of population growth in the local area was the major topic of discussion. The following day in class, the students discussed the effectiveness of the city council form of government in resolving major local controversies. This was followed, for the next few days, with a comparison of the American system of local government to the political apparatus for handling local issues in France.

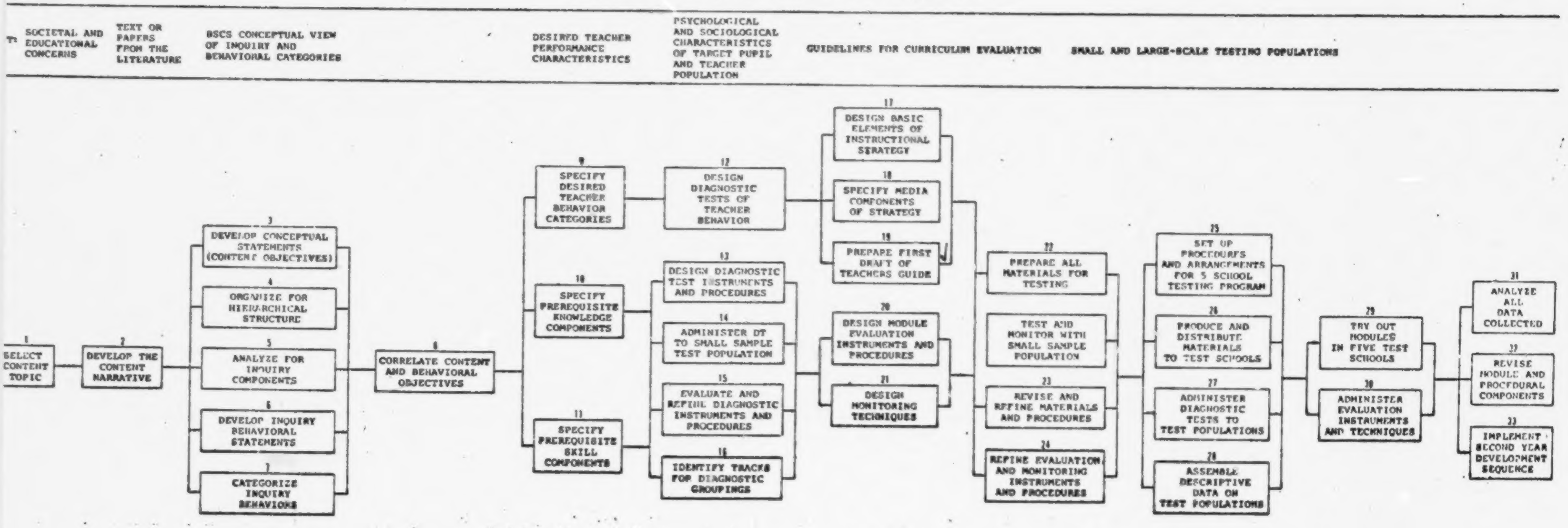
Mr. Meeker's sixth-graders took a fifteen-minute walk around a couple of blocks near their school in north Denver. Then they returned to the classroom and made lists of things they had heard, seen, touched, smelled, or even tasted on the walk. Next, by each item on their lists, they noted whether they liked, disliked, or did not have any definite preference about the sense experience. This list was then used as the basis for discussion for the next two days about why they liked or disliked the various experiences, what cause those phenomena, and how they might go about discouraging the things they did not like and encouraging the things they did like. It turned out that the class was most concerned about two things in particular: they did'nt like the noise and smells of the cars and buses and they did like the fun and activity of all the people milling around the small neighborhood commercial area across the street from their school. They broke into two groups, one focusing on each of these two concerns. Each group studied more thoroughly the causes and effects of each kind of activity and began developing plans for changing/maintaining the two situations. They were so excited about their plans that Meeker went to the principal to see if they could actually put them into action. Miss Snively, who had been promoted to principal at the beginning of the year, thought the idea of getting out of the classroom was wonderful, but didn't think it wise to have the youngsters mixing in with those winos that hung out at the bar across the street. Now, if they'd do something constructive, like campaign against the saloon......

Two teachers at Sadmess High decided to try their hands at an interdisciplinary, team teaching approach. Mrs. Bagley's biology class joined with Mr. Snurd's social studies class for one week to study population problems. They began by conducting an experiment in population increase using paramecia and yeast. Then Bagley lectured on natural mechanisms of population control among the lower animals. This was followed by Snurd's lecturing on human population increase problems and methods of controlling human population. Each student then took a developing nation and did research in the library on population problems in that country. On Friday, about a third of the combined class reported on what they had learned. On Monday, the classes again met separately to continue their regular coursework.

Mr. Blogett's eighth-grade general science class spent two weeks studying air pollution. They began by reading a booklet giving a general overview of the nature of air pollution and describing two case studies in the United States: New York City and the Four Corners area. The following day Blogett led a discussion of the reading and on Wednesday he gave a short lecture on the causes of air pollution, followed by a demonstration of how to use the school's newly acquired air pollution measuring equipment. During the next two days and over the weekend the class's assignment was to take measurements at various sites around the city at various times of the day and night. On the following Monday the data gathered by the students were compiled and posted on a big chart in front of the room. After studying the total picture on the chart for a few minutes, the class began figuring out what caused the differences in air pollution levels at different times and places. This carried through the next day. Then on Wednesday, Blogett furnished the class with a variety of additional readings on the chemical and natural processes involved in air pollution. Based on what they had learned from the previous class activities, on these readings, and on whatever other information they could find, the students were to prepare a 250-word theme proposing techniques for cutting down on air pollution in their city. The themes were due the following Monday.

Figure 1

MODULE DEVELOPMENT SEQUENCE


T: SOCIETAL AND EDUCATIONAL CONCERNS
TEXT OR PAPERS FROM THE LITERATURE
BSCS CONCEPTUAL VIEW OF INQUIRY AND BEHAVIORAL CATEGORIES
DESIRED TEACHER PERFORMANCE CHARACTERISTICS
PSYCHOLOGICAL AND SOCIOLOGICAL CHARACTERISTICS OF TARGET PUPIL AND TEACHER POPULATION
GUIDELINES FOR CURRICULUM EVALUATION
SMALL AND LARGE-SCALE TESTING POPULATIONS
1 SELECT CONTENT TOPIC
2 DEVELOP THE CONTENT NARRATIVE
3 DEVELOP CONCEPTUAL STATEMENTS (CONTENT OBJECTIVES)
4 ORGANIZE FOR HIERARCHICAL STRUCTURE
5 ANALYZE FOR INQUIRY COMPONENTS
6 DEVELOP INQUIRY BEHAVIORAL STATEMENTS
7 CATEGORIZE INQUIRY BEHAVIORS
8 CORRELATE CONTENT AND BEHAVIORAL OBJECTIVES
9 SPECIFY DESIRED TEACHER BEHAVIOR CATEGORIES
10 SPECIFY PREREQUISITE KNOWLEDGE COMPONENTS
11 SPECIFY PREREQUISITE SKILL COMPONENTS
12 DESIGN DIAGNOSTIC TESTS OF TEACHER BEHAVIOR
13 DESIGN DIAGNOSTIC TEST INSTRUMENTS AND PROCEDURES
14 ADMINISTER DT TO SMALL SAMPLE TEST POPULATION
15 EVALUATE AND REFINE DIAGNOSTIC INSTRUMENTS AND PROCEDURES
16 IDENTIFY TRACKS FOR DIAGNOSTIC GROUPINGS
17 DESIGN BASIC ELEMENTS OF INSTRUCTIONAL STRATEGY
18 SPECIFY MEDIA COMPONENTS OF STRATEGY
19 PREPARE FIRST DRAFT OF TEACHERS GUIDE
20 DESIGN MODULE EVALUATION INSTRUMENTS AND PROCEDURES
21 DESIGN MONITORING TECHNIQUES
22 PREPARE ALL MATERIALS FOR TESTING
TEST AND MONITOR WITH SMALL SAMPLE POPULATION
23 REVISE AND REFINE MATERIALS AND PROCEDURES
24 REFINE EVALUATION AND MONITORING INSTRUMENTS AND PROCEDURES
25 SET UP PROCEDURES AND ARRANGEMENTS FOR 5 SCHOOL TESTING PROGRAM
26 PRODUCE AND DISTRIBUTE MATERIALS TO TEST SCHOOLS
27 ADMINISTER DIAGNOSTIC TESTS TO TEST POPULATIONS
28 ASSEMBLE DESCRIPTIVE DATA ON TEST POPULATIONS
29 TRY OUT MODULES IN FIVE TEST SCHOOLS
30 ADMINISTER EVALUATION INSTRUMENTS AND TECHNIQUES
31 ANALYZE ALL DATA COLLECTED
32 REVISE MODULE AND PROCEDURAL COMPONENTS
33 IMPLEMENT SECOND YEAR DEVELOPMENT SEQUENCE

The components to be included in modules are:

a. performance objectives; cognitive, affective, psychomotor. Terminal objectives for the module and subsumed objectives with their associated student and teacher activities will be included.

b. prerequisite behaviors required for student access to the module.

c. diagnostic procedures and instruments to assess student competencies regarding prerequisite behaviors.

d. alternative entry activities for selected student groupings as indicated by the diagnostic instruments.

e. descriptions of student and teacher activities--within a sequenced instructional plan: activities and sequencing to provide for individualized, small group, and large group instruction.

f. criterion measures to assess student competencies at critical points within the module. Critical points are those points where student learning, especially mastery, must be completed prior to the next step in the module.

g. criterion and achievement instruments designed to determine student success in meeting the performance objectives.

h. teaching strategies for using all module components, including strategies for enabling students to enter and leave the module as they demonstrate the specified behaviors.

i. multimedia materials, such as film loops, filmstrips, etc., to be included in student and teacher activities. These media will be designed to be consistent with objectives, scope and sequence of each module; and with the basic program design.

A two page article from The Science Teacher (October 1971) has been omitted here because of copyright restrictions. It is called, Environmental Studies, by Robert E. Samples.

THE DISCUSSION GROUP

We are all members of groups, groups that have a profound effect upon our lives. In fact, we are largely what we are because of our group memberships and our association with significant others. Our attitudes, beliefs, values, expectations, and goals have been determined to a large extent by an accident of birth and circumstances, incorporated from the culture and society within which we grew and developed.

We learn the rules, norms, and standards of the various groups to which we belong. We learn to behave in ways that are expected or accepted, and these may be quite different for the different groups of which we are members. We learn how to enter and gain the acceptance of a new group, how to protect ourselves from the group, and probably even how to manipulate or control the group. We learn all of these things if we are to survive, to achieve, and to maintain emotional stability as a member of any human society.

Some of us learn these things better than others, of course. Some are more effective than others as members of groups. Some are more effective at manipulating and controlling. Some have to conform to the group. Others resent the group and rebel, or attempt to assert their independence. Some withdraw from the group and remain as inconspicuous as possible. Some are able to be free, creative and responsive, and yet accepted and valued in the groups.

By the same token, there are different kinds of groups. Some require strict conformity and rigid adherence to the rules and standards. Others encourage deviancy, individuality, independence, growth, and creativity. Rivalries and competition develop within, between, and among groups, and a person may well find himself a member of conflicting groups. But whatever the groups, our lives are profoundly affected, to an extent we could never realize, by our membership in these groups.

It is for these reasons that you have been assigned to a group for your training. Much of the learning will be similar to what you have experienced in other groups--learning to relate to new people, what is accepted or not accepted, finding something in common as a group, finding one's place in the group, etc. But the learning will be more on a conscious level, focusing on what happens as the group forms and coheres--on the intricate, developing, changing, solidifying patterns of relationships within the group; on the nature and quality of individual membership in the group; on each individual's effect on each other individual and on the group as a whole; on the nature of and consequences of various events that occur within the group.

The group will be encouraged to explore events as they occur, to examine behavior and the consequences of behavior in the group, and to experiment with new forms of behavior that we may find to be more effective. This is a type of learning that cannot be obtained from a textbook, or a lecture on human relations. It can be acquired only through the experience of interacting with others. It requires re-learning, examination and testing of past and present assumptions or beliefs about the effectiveness of our relations with others.

This is a type of learning that few of us have had the opportunity to acquire in our past associations, because in the past we were able to experiment with new forms of behavior only to the extent that we were willing to accept the consequences. Often the consequences were so long lasting and of such significance for our future relationships that we were reluctant to risk experimentation. The alternative to experimentation, of course, is to continue behaving as we always have. This is what most of us do, alone or as individuals in groups. We are successful, of course, to the extent that we are using acceptable behavior patterns. That is, behavior that has allowed us to accomplish our objectives without creating too many problems.

Most of us have much to learn, however, whether we are aware that our behavior causes problems or whether we are unaware of the problems it causes. Many of us assume that our behavior must be effective or we would not have achieved the success we have. Yet many of us suffer anxiety as we enter new groups, because we do not know how successful we will be in a new group with different norms, values, and expectations. Many of us are afraid to try something new, for fear of the consequences of experimentation.

In your Discussion Groups, experimentation should not only be accepted, but encouraged. Your objective should be to create a group in which a person is able to test his behavior and to experiment with new methods of behavior without fear of rejection by his group. Experimentation should become the norm. The group may disapprove of a particular behavior, but this disapproval should be communicated in a supportive manner, as feedback regarding the results of the person's experiment with that particular behavior. The group's approval or disapproval then gives the person some basis for evaluating the effectiveness of the behavior and for selecting other alternatives. The opportunity exists to try out new methods of behavior, and to have these evaluated in terms of their effect on others and how well they accomplish the desired results. In this way, the individual can obtain invaluable feedback regarding the effect of his habitual modes of behavior on other people and can experiment with and acquire other behaviors that might be more effective.

In outside groups, a person seldom, if ever, has the opportunity to experiment in a free and supportive environment. What is learned in your Discussion Group can be applied in outside groups, however. Your Discussion Group becomes a testing ground for new behavior, and a setting in which one can learn how to learn from new situations and experiences. As you experiment, you will develop not only a better understanding of group dynamics, but increased sensitivity to the reactions of others to you, and your reactions to others. This increased sensitivity and understanding not only should help you adapt to and work more effectively in new and different groups (and cultures) but should help you learn to be more effective in helping others learn to work together productively and creatively.

The Discussion Group provides a basis for learning about the difficulties encountered in working with people. The mere fact that people differ in the manner in which they perceive and solve problems often leads to difficulty in problem solving (working together). Overcoming such difficulties--which is really learning how to live and work together effectively--is one valuable bit of learning provided by the group. These difficulties are compounded, of course, when we move into new groups, particularly into groups that have evolved within an entirely different culture. But the learning acquired in the Discussion Group should provide a basis for understanding and adjusting to these new groups, should provide us with the awareness of and sensitivity to reactions which might be quite different from those to which we are accustomed, to cultural differences, to the kinds of behavior or change in behavior that will be required to work effectively in a new and different culture.

A Discussion Group has no designated leader. The group must decide how it is to handle the problems of leadership. No particular organization for discussion or procedure for solving problems or making decisions is provided. The organization and procedure must be developed by the group. The group must find out where it wants to go, what it wants to accomplish. It must establish its own goals and must decide for itself how it is to achieve these goals. The group must learn to examine its own performance, to evaluate its effectiveness, and to assess its development, focusing on the group as a whole as well as on each individual within the group. Some tasks or activities will be presented to or imposed on the group. Others will arise from within the group. But little help will be provided by the staff. Primary responsibility for the growth and development of the group and individuals within the group rests with the group itself.

GROUP PROCESS EVALUATION SCALE

1. How clear were the objectives of your group in the meeting that you just concluded?

1	2	3	4	[✓ 5]	6	7	8	9
Not at all clear				Somewhat clear				Completely clear.

2. How much time during the discussion was spent on unimportant or inconsequential matters?

1	2	[✓ 3]	4	5	6	7	8	9
None				Some				A great deal

3. To what extent did everyone have a chance to say what he thought?

1	2	3	4	5	[✓ 6]	7	8	9
Not at all				To some extent				To a great extent

Who did not have a chance to say what he thought? Dan, Reggie

4. To what extent were people listening to each other?

1	2	3	[✓ 4]	5	6	7	8	9
Not at all				To some extent				To a great extent

Who was a particularly good listener? Dan, Craig, Reggie, Dick

5. To what extent were people open with each other and risking themselves by sharing their concerns and ideas?

1	2	3	4	[✓ 5]	6	7	8	9
Not at all				To some extent				To a great extent

Who was particularly open and risking? Sherry, Sue, Suzanne

Who was not open and risking? Dan?, Reggie?

6. How do you feel about this group at this time as a problem-solving group?

1	2	3	[✓ 4]	5	6	7	8	9
Worst Possible Group				Average Group				Best Possible Group

"HERE AND NOW" VERSUS "THERE AND THEN"

Topics discussed in the Discussion Group meetings may be categorized in terms of "Here and Now" or "There and Then." The latter are those events that occurred prior to entering the training program or outside the training program. They concern things that happened to us in the past (such as experiences while we were growing up, with our friends or family, in school, on the job, etc.) or other outside events, philosophical issues, etc., that do not bear directly on the task at hand or goals and purposes of the group.

When we talk about what we are now doing, how we are doing it, and the effects of present experience on present and future events, we are talking about events that are "Here and Now." These are topics that are a product of present conditions rather than past "There and Then" conditions; our present, shared experiences rather than remote, unshared experiences.

We can spend a lot of time on events, issues, and experiences that very often is wasted time, or time that the group could better spend on other topics. If the group hopes to develop into an effective, problem-solving, achieving group, the time is usually better spent on the "Here and Now," what is happening in this group, right here, right now, and what relationship this has to our objectives in the training program.

Human Relations Center
Boston University
For Training Purposes Only
Presentor: Miriam Ritvo

AOTA Regional
Institutes 1965

GIVING AND RECEIVING FEEDBACK

Helpful feedback is a process of giving data to a person in such a way as to help him improve his performance in achieving his goals.

I. Individual Feedback

A. Why do we want to give feedback to another person?
   1. To punish him.
   2. Get something off our chest and make us feel better.
   3. To show our superior wisdom and insight.
   4. To help the other person achieve his goals in a more effective way.

B. What about the person receiving the feedback?
   1. It is difficult to give feedback to a person who is not ready to receive feedback or feels no need for it.
   2. He may be asking for feedback but people do not give this to him for several reasons:
      a) They feel they have nothing helpful to give him.
      b) They feel he is not ready or the conditions are not right.
      c) They feel the feedback will not be particularly helpful at that time.
      d) They feel the person wants feedback to reinforce his self-image, i.e., that he is really a good person or he is really as ineffective as he thinks he is.
      e) They aren't aware he's asking for it.
   3. People need both positive and negative feedback. They need to know not only what they are doing in an ineffective way, but also what they do that is effective so they can correct the one and continue the other.

C. Why do people find it difficult to give feedback to someone else?
   1. Our culture has certain norms against expressing personal feelings to others.
   2. They are afraid if they give feedback, the person will get upset and they will lose a friend.
   3. Afraid if they give feedback the other person will attack or punish them.
   4. They are afraid the feedback will be misunderstood.
   5. They don't know how to go about it.

D. How do people commonly react to feedback? Since feedback is often seen as criticism, people often react in ways trying to defend themselves by:
   1. Choosing not to hear what is said--selective reception.
   2. Doubting the motives of the person giving the feedback, e.g., he's telling me this just to get even; because he's a natural sorehead, etc.
   3. Denying the validity of the feedback data.
   4. Rationalizing why he behaved the way he did.
   5. Attacking the person who is giving the feedback; telling him some of his faults.

E. If successful feedback is to be communicated, the barriers between "giver" and "receiver" have to be broken down and a relationship of confidence and trust established.

What kinds of feedback data are helpful?

1. Objective data - observations of actions that one sees external to his own feelings, e.g., "I saw you talk for five minutes continuously. You talked to only one other person."
2. Subjective data - How the other person's actions made you feel, e.g., "When you did that you made me feel very uncomfortable."

This is not to impugn the other person's motives. We do not know why he did what he did. We do know how his behavior made us feel.

When we get feedback from one person, we need to check this against others' reactions to see if we need to alter our behavior generally or just with that one person.

F. Timing and Method. Feedback is generally most helpful if connected with a specific incident. A person who is told only that he is "domineering" has less opportunity to know exactly what this means in terms of what he had done, than if you told him that "yesterday when we were deciding the issue, you did not listen to what others said, and people felt forced to accept your arguments or face attack from you."

While there are certain arguments for giving feedback as close to the incident as possible (allowing hostile and defensive feelings to abate) experience indicates that with adults they can recall and learn from feedback attached to incidents that happened some time earlier--provided that the recall is accurate.

II. Group Feedback

A. The group also needs to receive information about its performance. It may need to know that the atmosphere is defensive; there is too much rigidity in procedures; there is a lack of using certain people and resources; there is too much reliance on the leader.

1. The same problems involved in individual feedback are present in the total group to a more or less degree.
2. The group may receive feedback from:
   a) Members acting as participant - observers.
   b) Members selected to perform a specific observer function for the group.
   c) Outside "consultants" or experts who come in to observe from a more objectiver perspective.
   d) Forms, questionnaires, reaction sheets, interviews from members.

GIVING AND RECEIVING FEEDBACK

III. "Feedback" is a way of helping another person to consider changing his behavior. It is communication to a person (or a group) which gives that person information about how he affects others. As in a guided missile system, feedback helps an individual keep his behavior "on target" and thus better achieve his goals.

Some criteria for useful feedback:

1. It is descriptive rather than evaluative. By describing one's own reaction, it leaves the individual free to use it or not to use it as he sees fit. By avoiding evaluative language, it reduces the need for the individual to react defensively.

2. It is specific rather than general. To be told that one is "dominating" will probably not be as useful as to be told that "just now when we were deciding the issue you did not listen to what others said and I felt forced to accept your arguments or fact attack from you."

3. It takes into account the needs of both the receiver and giver of feedback. Feedback can be destructive when it serves only our own needs and fails to consider the needs of the person on the receiving end.

4. It is directed toward behavior which the receiver can do something about. Frustration is only increased when a person is reminded of some short-coming over which he has no control.

5. It is solicited, rather than imposed. Feedback is most useful when the receiver himself has formulated the kind of question which those observing him can answer.

6. It is well-timed. In general, feedback is most useful at the earliest opportunity after the given behavior (depending, of course on the person's readiness to hear it, support available from others, etc.).

7. It is checked to insure clear communication. One way of doing this is to have the receiver try to rephrase the feedback he has received to see if it corresponds to what the sender had in mind.

8. When feedback is given in a training group, both giver and receiver have opportunity to check with others in the group the accuracy of the feedback. Is this one man's impression or an impression shared by others?

Feedback, then, is a way of giving help; it is a corrective mechanism for the individual who wants to learn how well his behavior matches his intentions; and it is a means for establishing one's identity - for answering Who am I?

Skill in Communicating With Other People and Establishing Effective Relationship With Them

- an awareness of feelings and reactions of others and their impact on self;
- skill in dealing with interpersonal and intragroup phenomena in establishing more productive and satisfying relationships;
- a consistency between personal experience, an awareness of that experience, and the effective communication of that experience to others in establishing genuine relationships with them;
- increased concern and consideration for others (sensitivity, understanding and empathy);
- increased ability to communicate, particularly to listen with understanding;
- increased interest in others (genuine interest in other person as person) and good natured responsiveness to other people;
- increased ability to relate to others in a way that is neither punishing, threatening, intimidating, demanding, degrading, humiliating, nor belittling; and the ability to relate with warmth, acceptance, understanding, tolerance and patience;
- increased tolerance and appreciation for ideas, values, beliefs, attitudes, behavior, standards, customs and traditions quite different from his own;
- increased ability to live and work harmoniously, creatively, and productively with others; and
- increased ability to gain the trust and confidence of others and to be open and trusting with others.

Personal Growth and Development

- increased self-esteem, self-confidence, and self-reliance;
- increased positivism, optimism, and responsibility for oneself and to oneself (as well as shared responsibility for and to peers);
- increased awareness of own feelings and reactions, and to own impact on others;

- increased self-insight and understanding--particularly in relation to the values, beliefs, attitudes, goals, and expectations of other Americans;
- reduced defensiveness and increased ability to own up to his behavior and to accept criticism;
- reduced need for recognition, reward, status, control, power, freedom, structure, guidance, etc.;
- increased ability to tolerate ambiguity, loneliness, frustration, and disappointment;
- resilience and ability to sustain a healthy, positive, optimistic outlook and not submit to the stagnation of despair, despondency, cynicism, negativism, pessimism, resentment;
- increased self-regulation and self-control; reduced hostility, aggressiveness, and competitiveness; ability to absorb hostility from others;
- increased awareness, clarity of perception, and ability to learn, change and grow with experience;
- changing or modifying behavior in accordance with personal interpretation of feedback information from others; and
- planning for continued personal learning.

Creative Problem-Solving Skills

1. Problem identification or recognition
2. Definition and redefinition of the problem
3. Exploration of possible approaches, perceptions or interpretations
4. Collection of data about the problem in preparation for solution
5. Development of criteria for evaluation of solutions
6. Generation of possible alternative solutions
7. Analysis and evaluation of alternatives
8. Testing, verification, feedback

In order to effectively apply this process, it is hoped that, the following additional goals will be achieved by each participant:

- increased self-confidence in his or her ability to perform effectively as a change-agent;
- the industry to apply himself diligently to a defined task;
- a personal sense of responsibility to do the best he can with little or no supervision;
- increased ability to initiate an activity and perseverance to follow through to completion;
- increased willingness and ability to recognize and consider alternative viewpoints, interpretations, and solutions as they relate to the task at hand;
- increased flexibility and openness to new ideas;
- increased ability to learn from experience;
- increased ability to learn from mistakes and to modify attitudes and behavior accordingly, and
- increased ability to avoid snap decisions and withhold judgement until all possibilities have been considered.

Leadership Skill Development

- the ability to differentiate between the self-centered, task-centered, people-centered, and human development-centered style of leadership;
- the ability to define emergent or shared leadership and differentiate it from authoritarian leadership;
- the ability to actively participate in the development of an effective, problem-solving group;
- the ability to identify various group functions assumed by members of a group;
- the ability to assess the on-going process of a group as it develops and aid in its continuing development by improving the process based on this assessment data;
- increased understanding of the role and techniques of the catalyst or change-agent in helping others learn to help themselves, improved skill as a change agent;

- increased ability to work with and relate to others in a way that will promote their self-respect, self-confidence, and ability to use their own resources to solve their problems;
- increased ability to support and assist others in achieving creative but practical solutions to their problems;
- increased ability to develop relationships with other persons that will be mutually rewarding, satisfying, and growth producing;
- development of ability to subordinate his own needs to those of the people with whom he will be working;
- ability to work with others in a non-threatening, helpful, and supportive manner; and
- increased skill in working with groups in a way that promotes constructive attitudes and learning, growth, and development of the group and individual members of the group.

Program Process Objectives

In order to achieve the goals and objectives of this program and of its components, each camper should demonstrate, all the way through the program, that he/she is:

- actively involved in the program's learning process and philosophy;
- willing to risk, to be open, and to expose himself, rather than maintaining a protective wall around himself;
- willing and able to own up to his own behavior, by accepting and acting upon feedback from others non-defensively; and
- taking responsibility for the community and the group and their members by openly sharing information with one another and giving useful feedback.

The list of objectives which follow are as comprehensive as possible and are probably best described as developmental as opposed to terminal, although the wording indicates the expectation that they will be achieved by the close of the camp program.

Man's Relationship to the Natural World

- recall and/or locate the names of important living and non/living things found in the natural environment.
- describe ways man and the natural world depend on each other.
- describe things man has already done to damage the natural environment.
- explain the results to man of his damage to the natural environment.
- predict the effects upon man of an act, or series of acts, which change the natural environment and unbalance the natural ecology.
- express personal feelings about the natural environment through art, crafts, poetry, music, etc.
- protect living and non-living things found in the natural environment.
- describe the sight, sound, touch or smell of something in the natural world he has never seen, heard, touched, or smelled before.

Man's Relationship to the Man-Made World

- describe a number of man-made things in this state, or wherever one knows them best.
- describe things man has done to his man-made world which have caused damage and un-happy results upon his health, happiness and peace of mind.
- predict effects upon man, given certain changes or improvements in the man-made environment.
- explain ways in which man can plan and work to improve the environment he has built or will build for himself.
- explain major causes and effects of various kinds of pollution upon man and other living things.
- describe the ways man and his manufactured world depend on each other.
- express feelings and awareness of the man-made world through arts, crafts, poetry, prose, music, etc.

Man's Relationship to Other Men

- demonstrate skill and ability in dealing with one's own man-to-man relationships.
- explain alternative methods of behaving which may result in building and improving relationships between men and other men.
- describe the major problems with man's relationship to other men in one's own community, city, state, nation and world.
- demonstrate leadership/human development, problem-solving, interpersonal relations and communications skills described elsewhere in the goals of the camp.

Man's Relationship to Himself

- describe one's own behavior in a variety of situations and circumstances.
- demonstrate personal growth and development skills described elsewhere in goals of the camp.

FORCE FIELD ANALYSIS

1. List the problems

2. Choose the problem area you want to deal with

3. In small groups:

    a. Answer questions--share & clarify answers
    b. List "forces for" and "forces against"
    c. Brainstorm solutions to overcome forces against
    d. Rank order the possible solutions starting with 5, the most important, then select the least important and label it 1. The remaining solutions will lie somewhere in between and should be labelled 2, 3, or 4.
    e. Develop a plan of action

5. Report the plan of action to the group

QUESTIONS

1. State the problem in your own words.

2. Are there other people involved with the problem? Who are they? How do they relate to the problem?

3. Are there other factors relevant to the understanding of the problem?

4. If you had the power to change any aspect of the problem, but not eliminate it--what aspect would you choose?

5. Thinking of the present state of the problem as a balance between opposing forces, list the forces on one side of the issue.

6. List forces on other side of the problem.

7. Rank order (start with 5) the forces going from 5 → 1

    5--most important
    1--least important
    2, 3, and 4--between 1 and 5

8. How would you change or manipulate forces to solve a problem? Refer to forces by number.

9. Why does this course of action appear the best?

10. Why did you choose to work on these particular forces?

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Possible Agenda Topic I

DIVISION OF LABOR

I. Analysis of Tasks

A. A suggestion from the 1930's: Luther Gulick on ways of departmentalizing an organization:

- a) by purpose (objectives)
- b) by process (e.g., accounting dept., central files, machine shop, etc.)
- c) by persons/things dealt with or served
- d) by place where work must be done

Are any of these (or a combination of them) appropriate for organizing our work? Are there other ways of dividing up our tasks?

B. One possible way of dividing our tasks:

Information/resource acquisition
- --research on substantive content
- --keeping up with what's going on "outside"
- --getting help from resource people (incl., trial teachers)
- --finding out about targets (teachers and students)
- --finding out how to get needed information
- --etc.

Information processing ("in-pull")
- --"sorting"incoming information
- --condensing information
- --getting information to whoever needs it in group
- --"storing" and "retrieving" information
- --deciding what to do with information
- --etc.

Idea generation (conceptualization?)
- --collecting ideas on what we ought to do
- --selecting from above
- --refining ideas--writing outline of activities
- --embellishing ideas
- --etc.

Materials development
- --writing teacher's guide
- --writing/photographing/whatever student materials
- --etc.

Materials "validation"
- --inhouse critiquing
- --out-house critiquing
- --school trials
- --etc.

Materials revision
- --editing
- --rewriting
- --remodeling
- --etc.

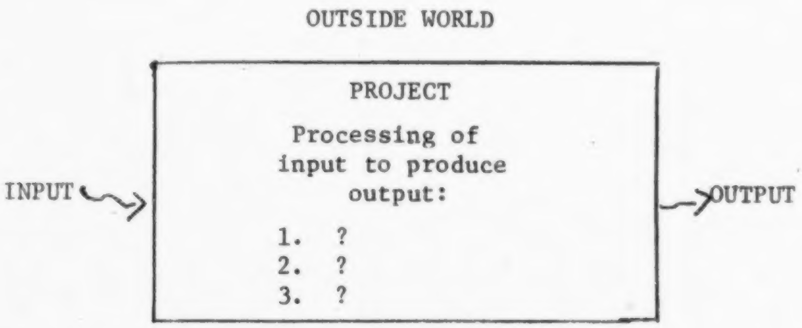
Materials production
- --typing
- --proofing
- --reproduction (including media)
- --etc.

Information dissemination ("outreach")
- --USOE relations?
- --answering letters, phone inquiries, and briefing visitors
- --workshops, conferences
- --BVPS relations?
- --etc.

Project evaluation

Is this an appropriate way to divide up the tasks? How much overlap is there among divisions? How should the "etc's" be filled out? Are other major divisions needed?

C. Maybe another way of conceptualizing the problem of task division might be by a systems model.



How do we fill out the processes in the box?

D. What about dividing up tasks by each person taking one or more of the following areas as his/her realm of expertise and responsibility:

Administration
- --budget
- --OE relations
- --etc.

Target group characteristics/needs/preferences
- --teachers
- --elementary students
- --junior high students
- --high school students
- --community & administrators
- --etc.

Content
- --natural science
- --pollution
- --values and attitudes
- --economic processes
- --sociological processes
- --etc.
- --social science and/or
- --population
- --political processes
- --sociological processes
- --psychological processes

- Media
    - --visuals
    - --audio
    - --written
    - --etc.
- Teaching strategies
    - --etc.
- Etc.

Is this appropriate? Filling out the Etc?

II. Skill Analysis

A. Sue--you have a neat way to do this?

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Possible Agenda Topic II

SCHEDULE

A. Includes 2 things at least:

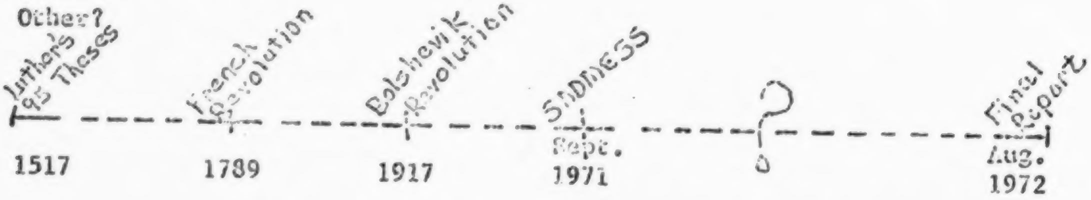
1. deadline

2. tasks in ordered sequence matched up to deadlines

But maybe also includes?
personnel assignments matches to tasks

Others?

B.


Other?
Luther's 95 Theses
1517
French Revolution
1789
Bolshevik Revolution
1917
SNDMESS
Sept. 1971
?
0
Final Report
Aug. 1972

C. There is a sketchy suggestion of one possible way to set up our schedule in the proposal. (We aren't bound by it in any way--except for the final deadline.)

D. Should we start by working backwards from August 15, 1972?

Possible Agenda Topic III

Things we need to know more about

Things we need to learn	How to find out more about
Educational objectives	
"antecedent conditions" child development teachers community	
teaching strategies	
content--facts concepts	
skills, methodology	
what's been done in EE already	
evaluation	
other	

Other Possible Agenda Topics

IV. How shall we describe and evaluate the total project?

V. Selecting ideas to be developed into activities.

VI. Develop several lists of "tools" we can utilize in various aspects of our work:

1) different kinds of media
2) different kinds of teaching strategies
3) different group process techniques for working on different kinds of tasks
4) different methods of evaluation

VII. Plan next 2 (or so) weeks in some detail

VIII. How to use a consultant (use Rocchio as an environmental consultant for practice)

APPENDIX E

Documents Related to the Generation of Ideas for Activities

E-1 Irving's 10/10/71 memo

E-2 Irving's 10/11/71 memo

E-3 October 12: Brainstorming

E-4 Dan & Karen's 10/13/71 memo

E-5 7/11/14 Activity Notes--10/19/71

E-6 7/11/14 Activity Notes--10/20/71

E-7 Madison Avenue

E-8 Progress Report on Madison Avenue--10/21/71

E-9 Advisory Board Minutes 10/22/71

10/10/71

TO: Karen and Reggie cc: Sue

FROM: Irving

This is mostly repetition of what I said at the retreat about decision-making.

It seems to me that two decisions have been made implicitly and vaguely, without examining their meaning and implications. The first is a decision that everyone in the project has an equal voice in making decisions. This is feasible and operable for a great many things, but it is possible that some decisions cannot be made by the entire group. I am not sure that it would be worth trying to spell this out--in fact, it probably cannot be, and might be harmful to group spirit. And the students probably understand already that there may be some limits to their decision-making power.

The second decision, implicit and somewhat vague, is that decisions of the group will be made by consensus. This is a difficult procedure to follow; and if it is followed, the group needs to be aware of what its requirements are, just as they need to know Roberts' Rules if they decide to use parliamentary procedure. The most usual defect in the operation of consensus is that the group proceeds as if everyone had agreed when in fact there are some who have not agreed, who feel they have not been consulted, and who go along reluctantly because they don't want to make a fuss--as with Alan, Dan, and John on Sunday.

I think it will be very useful to try out the chairman-and-steering-committee idea this week. If this works well, maybe we don't need to raise further questions about procedures. But if we ever get in the fuzzy fix we were in over the weekend, I think we should bring the question of how decisions are made into the open and try to get some understanding about it.

E-2

MEMORANDUM

TO: Karen, Reggie, and Sue

FROM: Irving

DATE: October 11, 1971

SUBJECT: Agenda for the near future

Since I won't be able to participate in SADMESS meeting on Monday, I would like to put down my ideas for hoped-for outcomes for agenda for the near future. This follows the ideas put up at the Retreat, adding some organizational ideas about how to make choices and move along.

There can be work groups of 1 to 3 students each working on a task for about two weeks; or, work for a week, report back, decide whether task is completed, should be continued, should be discontinued, should be modified. Each group should have either Karen or Reggie working with them as manpower and advisor; Sue and I would also work with one or two groups on topics where we could contribute most. A single work group could take on two or more of the tasks we had listed, if they are closely related. Suggested work groups are:

Group 1. Two tasks, closely related because their major, but not exclusive, input would be from the ERIC/SMAC and SMAC-ChESS projects, also from Wiley-Morrissett book.

(a) What is (are) "the environmental problem)s)"? What thinking have "we" done on this to date? What do others think it is? What do we think it is, after surveying a broad range of opinion, and how we can organize these problems into a manageable outline or structure?

(b) Review of EE materials. What do they look like, in general? How can they be classified? What are some good ones?

Staff person: Karen

Group 2. Two tasks, both accomplished during a single process of examining a number of curriculum materials packages in the Resource Center.

(a) Examples of modes and media for learning, such as inquiry, games, simulation, role-playing, exposition, slides, and tapes. Find several good examples of each, illustrating various approaches or ideas about each of the modes or methods.

(b) Examples of evaluation methods, as illustrated in materials but also looking at other sources. Give good examples of as many methods of evaluation as can be found.

Are there other things that this group could look for, while surveying materials with these two objectives in mind?

Staff person: Reggie

Group 3. Two tasks, somewhat but not closely related.

(a) Survey of models for curriculum building, and a recommendation and rationale for a model for our project.

(b) A study of the targets for our materials--mainly fifth-graders, secondary students, and teachers. What are the major do's and dont's in preparing materials for them? Some help might be had from the Targeted Communication survey of target groups.

Staff persons: Karen and Sue

Group 4. Topics and structure of topics.

(a) Possible topics selected from the usual listing of environmental problems. This listing could later be checked against the results of Group 1's work, but it would not be necessary to wait to get started.

(b) Search for concepts, structure, ideas, tools, methods, etc. from the social sciences and social studies that would be used in or somehow coordinated with the work on topics in (a).

(c) Construct one or more suggested ways of organizing (a) and (b) into a list or into groups of topics or ideas for modules or units.

Staff persons: Reggie, Irving

Group 5. Begin doing a unit.

I would prefer to see Groups 1-4 function before Group 5 (or more than one Group 5) goes. But I sympathize with Karen impatience to get hold of something in a preliminary and experimental way. I don't know how to give priorities among Groups 1-4. I would like to see them all proceed at once.

SADMOS

October 12: Brainstorming

---

3 = Good Possibilities

1. Noise pollution, deaf society
2. Role playing activity based on ZPG in Boulder.
3. Case study of power plant pollution in 4 corners area.
4. System analysis of city block (form house)
5. Winter Olympics and their effects
6. Household appliances and their effects
7. Levels of consciousness and how they affect decision making
8. Madison Ave.
9. If I Were King
10. Busting the highway trust
11. Psy. and social effect of overcrowding
12. I am a trash can liner
13. (Bigger and better) planned absolesonce
14. Decision making under pressure

0 = Clarification or Pinning Down Needed

1. Air pollution
2. Absolute, relative, and environment--levels of consciousness and how they affect decision making
3. Waste disposal
4. Alternatives to life styles, values
5. Motives behind pollution
6. Overconsumption
7. Let it be
8. Man's imperialistic pollution
   U.S. has x% world population, but uses x% world resources; industrialized countries exporting own environmental concerns when others are not ready for them

2 = Postpone

1. Alternatives to present technological problems
2. Drug culture versus natural life style
3. Body and mind pollution
4. Ecological trend of recycling (plus + minus)
5. Crudy food versus organic food
6. Pollution in national parks
   a) tourism
   b) air pollution
7. Snow mobiles
8. Environmental/Industrial complex--capitalizing on ecology
9. Federal versus state versus local versus public opinion on control of pollution
10. Systems analysis of the interrelationship between population pollution, depletion of natural resources and economic growth on a global scale
11. Car pools--case study
12. Pornography--moral pollution
13. Self-sufficient house

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14. Social engineering
15. Relationship between technical world and spiritual world
16. Minority attitudes towards population
17. Third world attitudes towards exportation of environmental problems
18. Effects of reduction of auto-transport on poor

0-2 = Postpone and Clarify Later

1. Mass transit, car versus bicycle
2. Environmental problems relating to man's behavior
3. Ecosystem
4. Vanishing wildlife--national parks
5. Effects of aerosol cans on society
6. Mass hysteria
7. Decision making under pressure
8. Relationships between population trends and everything else (employment, training, etc.)--misplanning
9. Birth control

1 = Topic Not Acceptable

1. Booze and legal drugs (over consumption)
2. If the indians ruled
3. Car versus bike
4. Billboard pollution
5. Activity in planning Utopean city
6. Coors--case study
7. Glass and plastics
8. TV, brainwashing
9. Society's creation of needs
10. Airplanes
11. Junk mail
12. Where were you when the trash man came
13. Learning channels to solve environmental problems
14. Trash masher
15. Bottle versus paper containers

X = Methods and Strategies That Might be Used in Several Activities

1. Decision making under conditions of uncertainty
2. Activities designed to create other activities
3. Walk in the mountains
4. Walk in the city dump
5. If I were king
6. Side effects in natural and social world
7. Perception of environmental hazards
8. Detective methods

clm

MEMORANDUM

TO: Irving and Sue
FROM: Dan and Karen
DATE: October 13, 1971
SUBJECT: SADMESS meetings of October 11 and 12

1. On Monday, October 11, we followed Rocchio's suggestions for breaking into three groups; one dealing with roles problems, one with scheduling, and one with terminology. Each of these groups reported to the whole group and their suggestions were accepted with only minor modifications.

   A. Scheduling.
   The scheduling group produced an overall diagram of the big steps in production of an activity. This is on file (on a posting sheet) in the SADMESS room. The diagram emphasized the importance of thinking of alternative ways of going about our job, while at the same time giving us a general framework for procedure. It is expected that this framework will be modified as we go along.

   The scheduling group set a deadline of October 15 for selecting two activity topics. We were to begin the selection process by a brainstorming session on Tuesday. It was felt that doing general background research at this point was more than we could handle. By choosing two specific topics, we would be better able to focus our research efforts on concrete problems we encountered and thus make our research efforts more efficient.

   B. Roles.
   The roles group did a force field analysis of role problems within the group. They made a number of specific suggestions for solving these problems, which are incorporated into the "Golden Rules" below.

   C. Terminology.
   The terminology group turned itself into a communications group and also made a number of specific suggestions which are included in the "Golden Rules" below.

   D. "Golden Rules"
   These are things we've all agreed to try to be, do, be aware of, etc.

      1. Remember Alternatives.
      2. Be Sensitive to others.
      3. Let the person finish speaking before asking questions. Do ask questions afterwards.
      4. Don't wear out good terms.
      5. Define whether the discussion is "Brainstorming" or "Calm discussion" or "Reporting." Define objective. Before meeting begins.
      6. Define your terms within your context.
      7. Welcome experience as useful input rather than assertion of rank.

8. Recognize problems and deal with them before they defeat the group.
9. Be Far-out!!!

E. Alan was re-elected chairman for the week by unanimous acclaim. Rah! Rah! Rah!

2. On Tuesday, October 12, we brainstormed miscellaneous activity topics. We then classified them on a scale of 0-3, where 0 meant clarification needed, 1-topic not acceptable, 2-postpone for later evaluation, and 3-good possibilities for first two activities. Attached is a list of topics in order of classification from 3-0. Tomorrow we will focus on sorting out the 3's.

We also organized a Steering Committee to deal with matters that do not need the full attention of the full group. The Steering Committee for the next two weeks will consist of Steve, Karen, and Sherry. At the end of two weeks, a new Steering Committee will be chosen. All proposed agenda topics, etc. should be channeled through the Steering Committee.

Two additional primary teachers were interviewed for the position of Teacher Consultant by an interview committee.

DB&KW:clm

SADNESS - 7/11/14 Activity
October 19, 1971 167

OBJECTIVES

In the 7/11/14 activity, we would like to explore some or all of the following questions:

Questions dealing with decision-making

1. What affects decision-making?

   Some possible factors include: time, how important the decision is to the decision-maker, level of consciousness, degree of difficulty of making the decision, interruptions in thinking over the decision, deman of outsiders, extent of knowledge of alternatives,.....

   Some factors which might affect social, political decision-making are: power, channels through which conflicting opinions are pàssed on to the decision-makers, numbers of people holding similar and dissimilar opinions,.....

2. How can an individual, a group make good decisions?

   What are some alternative ways of making decisions? Compare alternativ Are some ways better than others? Are some ways appropriate for some situations but not for other situations? .....

Pressure

1. What different kinds of pressures are there?

   Peer pressure; social cliques; responsibility; violence;.....

2. What does pressure do to human behavior?

   increases violence; .....

3. What is pressure and what isn't pressure? What are some of the characte istics of pressure?

   unpleasant; bad vibes; conflict;.....

4. What are some different ways of handling, releasing pressure?

   .....

kE2

Levels of consciousness

1. What is consciousness? unconsciousness?

   .....

Crowding

.....

TO BE FINISHED ON WEDNESDAY

DECISIONS WE HAVE TO MAKE	DECISIONS MADE
1. grade level	
2. one big integrated activity or bunch of little, sequenced, building block activities or bunch of little baguely connected activities	We will aim for the second option--building block style.
3. deadlines	December 1 - draft ready to be sent to outside reviewers
4. strategy(ies)	
5. media	
6. division of labor	
7. duration of activity	Approximately three to four days is the length we will aim for.
8. objectives	See OBJECTIVES sheet.
9. content	

SADNESS - 7/11/14 Activity
October 20, 1971

We finished up our listing of questions under Level of Consciousness and Crowding. The questions are listed below.

Levels of consciousness

1. What is consciousness? unconsciousness?

2. What is full consciousness? complete awareness?

3. What's the difference between consciousness and perception? and intelligence? and creativity? and sensitivity? and emotions? and understanding? and wisdom? and perspective? and trusting? and openness/unassumingness?

3. What sort of a relationship is there between levels of consciousness and the socio-economic structure? What factors affect individuals/groups' levels of consciousness?

4. Is there a hierarchy of levels of consciousness? What are the different levels and in what order do they develop?

5. How do the different levels of consciousness affect decision-making?

6. Does age make a difference in what level of consciousness one can/does reach?

7. What's the relationship between consciousness and sanity?

8. What's the relationship between family structure and processes and level of consciuosness?

Crowding

[illegible]

1. What is "crowded" and what isn't? Why do people in some cultures "like" living glommed up close together and people in other cultures, spread out?

2. What factors contribute to a tolerance or lack of tolerance for crowding?

   psychological; physiological; natural surroundings; man-built surroundings; social stuctures; cultural background; perceptions; .....

3. What are the effects of overcorwding on human behavior?

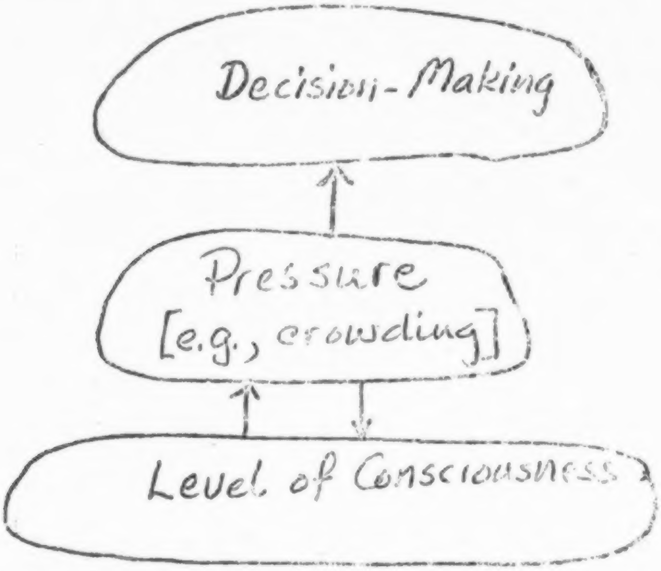
   alienation; isolation; lonliness; crime; low trust; "bad vibes" (what are vibes?); ....

4. What causes overcrowding?

   population; culture patterns; values; lack of mobility; .....

5. How can individuals, societies cope with crowding?

We also talked a little bit about how these four items fit together: the focal point seems to be decision-making. We are interested in how pressure affects decision-making and, in turn, how level of consciousness affects and is affected by pressure. Crowding is a specific (somewhat) example of pressure. Diagrammatically:



We decided to aim at the high school level, keeping in mind the possibility of later doing an elementary activity related to the same topic, after we are more familiar with the area.

We decided to break and work ~~as~~ individually for the next few days. Steve and Suzanne are going to focus on strategies. Karen and Craig are going to focus on content, but jot down strategy ideas as they think of them. Don is going to continue his study of peer pressures in the Resource Center and also jot down any strategy ideas that occur to him.

Next Tuesday we will meet as a group again. Everyone will have written notes on what they have done and we will discuss them and decide where to go from there. Some of the group wanted to try dictating their ideas on the machine, for me [illegible] Connie to transcribe.

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MADISON AVENUE

DECISIONS TO BE MADE...

1. Objectives
2. grade level
3. length of activity
4. evaluation
5. one activity vs. a series of related activities
6. method and media (cards, slides, game, create own ad, etc.
7. content

FROM THE BRAINSTORMING ON CONTENT...

(FCC)

television and peoples' consciousness
sex appeal - polluting minds
image creation
household appliances
bigger and better-planned obsolesence
capitalizing on the environment fad
psychological effects of advertising
different types of advertising--door to door, friend to friend,
    billboards, packaging, etc.
deceptive advertising
information v. selling
economic aspects of advertising
creating a need
targeted at specific interest group
advertise for learning
advertise yourself-selling of a president

FROM BRAINSTORMING ON METHOD AND MEDIA...

slide show
go out and observe advertisements
begin and end with same activity
deck of cards with advertisements to be categorized
create own ad--for product you like   for yourself
    for product you do not like   for school
toys and advertising
create ad for a product that does not hurt anything
create ad that does not hurt anything--recycling a container
use Whole Earth Catalogue
rework ad you like--rework ad you do not like (does choice of ad have
    anything to do with product)

FROM DISCUSSION OF ECONOMIC ASPECTS OF OUR TOPIC

The cost of advertising increases the price of the product. (See Printers Inc.) Advertising creates pollution directly as well as indirectly. (a waste of resources)

Product competition vs. Price competition
The car industry is a good example--product is mass produced but through advertising the public is made to feel there is a wide variety of products

or models to choose from. Color, upholstery and style are means of making the product seem different. The "package" is a form of advertising.
Other examples of deceptive availability of choices are toothpaste, Screaming Yellow Zonkers, soaps, etc.
When there are just a few producers, the industry wants the public to think they are getting a wide choice, but they really are not.

If advertising is effective, then people buy more and this leads to economic growth. Planned obsolescence has the same effect.
After a while the company loses its advantage gained through advertising because a new standard is set. This is a waste of resources.
Small companies are at a disadvantage because they spend more per unit product in advertising than their larger competitors when all advertise.
Cigarette industry--none would voluntarily stop TV advertising, but when forced to do so they all gained...less cost for advertising leads to an increase in profits.

SUGGESTED RESOURCE PERSON...a market researcher from the business school

FROM MY NOTES ON WORK IN THE RESOURCE CENTER

TABA:
inquiry, problem solving, discovery learning, and creative critical and productive thinking
three levels of knowledge--basic concepts, core ideas, and specific descriptive knowledge
experience--each successive experience adds to a skill or power developed by the preceding step; each experience serves more than one objective
objectives--factual knowledge, practice in making inferences, distinguishing information that is relevant from that which is not
cognitive tasks--concept formation (grouping and classification of data) interpretation, making inferences, generalizing (going beyond that which is directly given)
applying known principles to predict consequences, to explain unfamiliar phenomenon and to hypothesize
planning on two tracks--continuity of content (assimilation of new information into an already existing conceptual system--continuity of behaviors--developing the cognitive for processing knowledge

EDC:
create understanding of themselves; introduce basic ideas of social science (evolution); introduce methods of social science (creation and testing of hypothesis); allow students to be social scientists and arrive at own conclusions

HARVARD UNIVERSITY (SSP)
Students should deal with political controversy at a general analytic level and relate his analysis to specific issues and concrete cases; Students should identify inconsistencies and conflicts between two and more values, empirical statements and definitions

SAMPLES:
force awareness of people involved
come to their own place
stimulation leads to self-motivation
highest ambiguity forces decision making
to avoid conformity to developer's expectations, underplay and over describe
we do things for ourselves

*******************US********************

pushing to learn causes students to turn off even if capable
allow for self-motivation in group
lots of resources available
allow for choices--not either or

PROGRESS REPORT ON MADISON AVE.

When starting as a group on our specific activity we decided on a outline for our proceedure. The content of the outline were things that needed to be taken into account when doing our activity. This list was basically : objectives, format, method and evaluation.

We have spent most of our time so far on objectives. We have spent time both brainstormin g and doing research on the objectives.

Our ofjectives for the Madison Ave activity c ould be divided into two or three groups, depending on your mode of thought. One group would be that of content or concepts. The other would be social science tools or cognitive skills. One other objective , though mabe related to the cognitive learning, would be in the realm of affectivee objectives or behavorial ofjectivesl We feel that all objectives are equally important in the activity.

Pre-specified or terminal objectives vs. open-minded objectives will be and are being explored. There is a feeling that we shall not set all the objectives for the student or the end-product of an activity. There is an interest in the process and by-products of an activity, though the objectives of the activity will not be completely openended.

Some of the content objectives that have been discussed are:

1) apreliminary introduction to advertising
   a what is advertising?
   b what are some different methods of advertising?

2) advertising creating needs creating images and values to be attained
   a selling unnecessary products
   b bigger and better (distinguishing quality)

3) advertisers capitalizing on ecology (fads)

4) gearing and capitalizing on certain groups

5) advertising nessecities vs. advertising luxuries

6) advertising as pure info. vs. as selling gimic

We have talked about format very vaguely and have a limited idea of what our format will encompass. We have discussed such things as using skare-tactics, keeping interest, the content using the skills, repeating skill using interesting media, applying skills etc..

We have done a little more talking about methods or activitaies within the activity. Some of the methods are:

1) cataforizing different kinds of advertising with a deck of cards
2) using a slide show to present a range of advertising: luxury vs necessity, information vs. brainwashing, etc..
3) client and adv ertising agency- making an advertisement and then making stipulations
4) sell something that you don't need
5) create an advertisement that doesnt hurt anyone.
6) Make an advertisement that would be used in the classroom
7) Sell the president
8) sell yourself
9) the saturday morning hype (a case study)

Evaluation ? will be looked at later

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MINUTES

SADMESS Advisory Board Meeting

October 22, 1971
12:30 - 3:00

SSEC, 855 Broadway, Boulder, Colorado

PRESENT: Board Members
David Hawkins, Mtn. View Center for Environmental Education
Nicholas Helburn, ERIC
Curtis Johnson, Chemical Engineering
Robert Samples, Earth Science Education Program

SSEC STAFF
Irving Morrissett, Executive Director
Sue Helburn, Co-director for SADMESS
Regina Greene, Staff Associate
Karen Wiley, Staff Associate
Connie Maupin, Secretary for SADMESS

Student Developers
Sheryl Wiggins
Susanne Bank
Craig Holdrege
Allan Heltzel
Dan Bouricius
Janey Brunton
Steve McElroy
Jon Rasmussen

Regina Greene opened the meeting by calling for reports on the activities of the group since the eight students began work on September 27.

Steve McElroy reported on the first two weeks:

1. Richard Rocchio (Center for Research on Education, Denver) worked with the group on building team cohesiveness. The procedure used included working on group tasks and then following such task with a group examination of the group and interpersonal processes involved in working through the task.

2. One of our major problems, we found, was to devise a workable decision making process. We needed to figure out how to make decisions without getting hung up on the decision-making process.

3. One solution to at least part of the decision-making problems was to set up a Steering Committee to handle all of the trivial things and do any necessary "looking ahead" for the group. A new Steering Committee is chosen every two weeks. There are three members.

4. We also set up some "Golden Rules" which consist mainly of things we need to do individually to help each other. The "Golden Rules" include:

- A. Remember Alternatives.
- B. Be Sensitive to others.
- C. Let the person finish speaking before asking questions. Do ask questions afterwards.
- D. Don't wear out good terms.
- E. Define whether the discussion is "Brainstorming" or "Calm discussion" or "Reporting." Define objective. Before meeting begins.
- F. Define your terms within your context.
- G. Welcome experience as useful input rather than assertion of rank.
- H. Recognize problems and deal with them before they defeat the group.
- I. Be Far-out!!!

5. We also learned from Rich Rocchio how to do a force field analysis of group problems. This involves analysis of the forces which will help in solving the particular problem and the forces which will hinder solution. After the analysis, specific solutions or procedures are developed with an eye to playing down the forces against and building on the forces for.

6. A major concern of all the members of the group during the first two weeks (and still) was evaluation: evaluation of the project itself, evaluation of the materials produced, and classroom evaluation of student achievement. We are very interested in discovering/developing alternative means of evaluation.

7. We talked with several different curriculum developers during the first two weeks. Robert Fox, Professor of Education, University of Michigan and Howard Mehlinger, Director, High School Curriculum Center in Government, Indiana University of the SSEC Board of Directors spent some time with SADMESS when they were in Boulder for a Board meeting. We visited BSCS and the Environmental Studies project here in Boulder to get an idea of two extremely different approaches to curriculum development.

8. We went on a retreat to the mountains on the weekend of October 9 and 10. Rich Rocchio accompanied us and we focused on group process problems, while at the same time attempting to accomplish some substantive tasks such as developing our schedule for the year. The weekend was great and we all went through many different stages of emotions.

9. On the home front, we have attempted to "raise SSEC's consciousness" with some success. We replaced the can coke machine with a bottle machine and have also proposed the use of recycled paper.

On the Monday following the retreat, we brainstormed ideas for learning activities to be developed by the group. Attached is a list of the ideas. From the list of "3s" we chose two to focus on for the first round of development. We decided that we should dive right into the work of development at this point instead of continuing to talk about what curriculum development is.

Sheryl Wiggins reported on the work of the first group, which focused on the topic "Madison Avenue":

This activity deals with the relationship of advertising to environmental problems. We have divided our procedure into looking at four different kinds of things: objectives, format, methods, and evaluation. We have talked a lot about objectives and are doing research in the Resource Center on objectives in other materials. We have also developed a list of activity ideas, such as "Selling the President."

Steve McElroy reported on the work of the second group, which is focusing on combining topics 7, 11, and 14 from the list of "3s." These three topics are decision-making under pressure, levels of consciousness, and decision making, and overcrowding. We believe they are related, though it may not appear so on first glance. We have talked about different kinds of pressure and what pressure does to human behavior. We have also talked about different ways of handling pressure, and the element of compromising in making decisions under pressure. The level of consciousness or state of mind of a person under pressure seems to have a lot to do with the decisions he makes. We are hoping to have a draft of the activity ready for review by the first of December.

The three reports were followed by discussion. David Hawkins asked what we expected to do with our products once they were finished--did we have plans for their further dissemination and use? Sue Helburn explained that the proposal specified development of four to six learning activities but did not go much beyond this to deal with dissemination. Regina Greene further elaborated that the proposal has two main objectives: developing products and experimenting with a model of curriculum development involving high school students.

There was some discussion about the next meeting of the Advisory Board and it was decided that Connie Maupin should set it up two weeks ahead of time and send a written reminder of it to the Advisory Board members.

Regina Greene asked if we could set up individual appointments with Board members to obtain in-depth inputs from them singly. It was decided that we very definitely could and should.

At this point, Robert Samples made some quick comments before he had to leave. He suggested that the group should not plan in detail; rather they should actually experiment with their ideas in the schools and then write the "natural history" of what actually happened. Irving

Morrissett said that he would like examples of how ES goes about doing this. It was decided that we would visit Samples at his home on Monday the 25th of October at 1:00 p.m. in order to learn more about the ES approach.

Curtis Johnson next brought out that, no matter how open we may try to be in developing our materials, we are still reasonably biased in that we are environmentally concerned. Irving Morrissett suggested that we might think of our prejudices as hypotheses to be tested and the "objectivity" would then come through our willingness to change our hypotheses if we are wrong.

Curtis Johnson also suggested that the Madison Avenue group might get Morris Massey from the Business School as a consultant.

We also discussed computerized models and prediction of environmental consequences. Johnson suggested we try to think in terms of some sort of a model that says, "If people spend so much on advertising of a certain kind, the economic result is likely to be such and such." Johnson suggested we might meet with some of his graduate students who are working on a computerized model of Colorado.

We also briefly discussed the relationship between the advertising topic and the decision-making under pressure topic. Advertising exerts a great deal of pressure on people in very subtle ways. Johnson gave the example of ads that involve family-size images--if more ads, no matter what their product, utilized only families of two children or fewer, the collective image of "ideal" family size could be influenced.

clm
11/2/71

APPENDIX F

Documents Related to the
Development of Sunshine Unfolding

F-1 Early Outlines:

  Number One
  Number Two
  Number Three
  Number Four

F-2 "Guide for Reviewing Materials for the 'Schoolbook'"

F-3 Progress Report

F-4 Looking for a Purpose

  Statement of Purpose--January 5, 1972
  Statement of Purpose--January 10, 1972
  "People's Actions in Contrast to Their Stated Beliefs"
  Statement of Purpose--January 29, 1972

F-5 Reviewers Comments on Manuscript

  Memo--March 27, 1972
  Sheryl Wiggins' comments
  Abe Flexer's comments
  Curt Johnson's comments
  Cheryl Charles' comments
  Irving Morrissett's comments
  Irving's further comments
  Janey Brunton's comments

F-6 Style Sheets

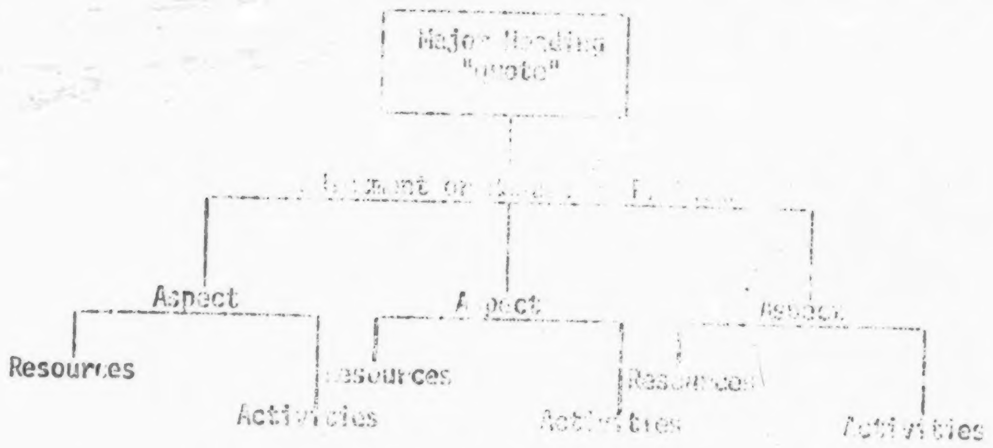
  Susanne Helburn--April 25, 1972
  Susanne Helburn--June 5, 1972

F-7 Calendar of Events

Outline #1

EARLY OUTLINES

INTRODUCTION TO OUR HUMAN ENVIRONMENT


Major Heading
"quote"
Statement of [illegible]
Aspect
Aspect
Aspect
Resources
Activities
Resources
Activities
Resources
Activities

Major Headings

1. Philosophical approach to environmental problems.
   a. psychoanalysis-psychotherapy
   b. religions
   c. struggle v. let it happen
   d. man's oneness with nature
2. Man and Technology
   a. How technology can be used to fullest extent for good.
   b. New definition for progress.
   c. spiritual/scientific approach to problems.
   d. man's drive for progress.
3. Living in the belly of a monster.
   a. environmental design
   b. alternative life styles
4. Social conscience/consciousness
   a. self criticism
   b. man's freedom to do as he wants v. damage to enviro-ment
   c. group interaction/dynamics
   d. individual/group consciousness
   e. effect of pressure of modern society on man
5. Political Mechanisms
   a. socialism v. capitalism
   b. using legal/illegal systems to solve problems
   c. lobbyists for environmental problems
6. Doomsday syndrome
   a. organic foods
   b. mass hysteria

Outline #2

The Schoolbook

World
?
What
We
Doing
The
In
Are

(make your own title)

will be a collection of new resources and old resources used in a new way for environmental education. We do not believe in directing the student to a chosen objective, but want the student to select the activity and direction he is interested in. Hopefully, the selection of materials in the book will act as a stimulus for his interest.

Statement of Purpose: We decided that the environmental problems i.e., air, water and noise pollution, are not the major problems. They are symptoms or side effects of the real problems which include social attitudes, values, moral judgements, consciousness, awareness, etc.

Criterion for Selection of Fields of Study: The areas we have chosen to review fall under a general category: different forces acting upon the individual and how they effect the individual and his relationship to the environment.

1. How different philosophical orientations to the universe (belief systems) affect peoples actions and relationships in their environment.

   a) psychoanalysis-psychotherapy
   b) biblical references
   c) man's oneness with nature--Hinduism, American Indians
   d) science and view of nature

2. Functions and effects of technology

   a) how technology can be utilized
   b) new definition for progress
   c) man's drive for progress
   d) spiritual/scientific approach to problems

3. Social mechanisms to deal with environmental problems

   a) Individual mechanisms
      1. self-criticism
      2. group interaction/dynamics
      3. individual/group consciousness
      4. effect of pressure on man
      5. man's freedom to do as he wants versus damage to environment

   b) Political mechanisms
      1. socialism and capitalism
      2. using legal system and radical methods to solve problems
      3. lobbyists for the people and the environment

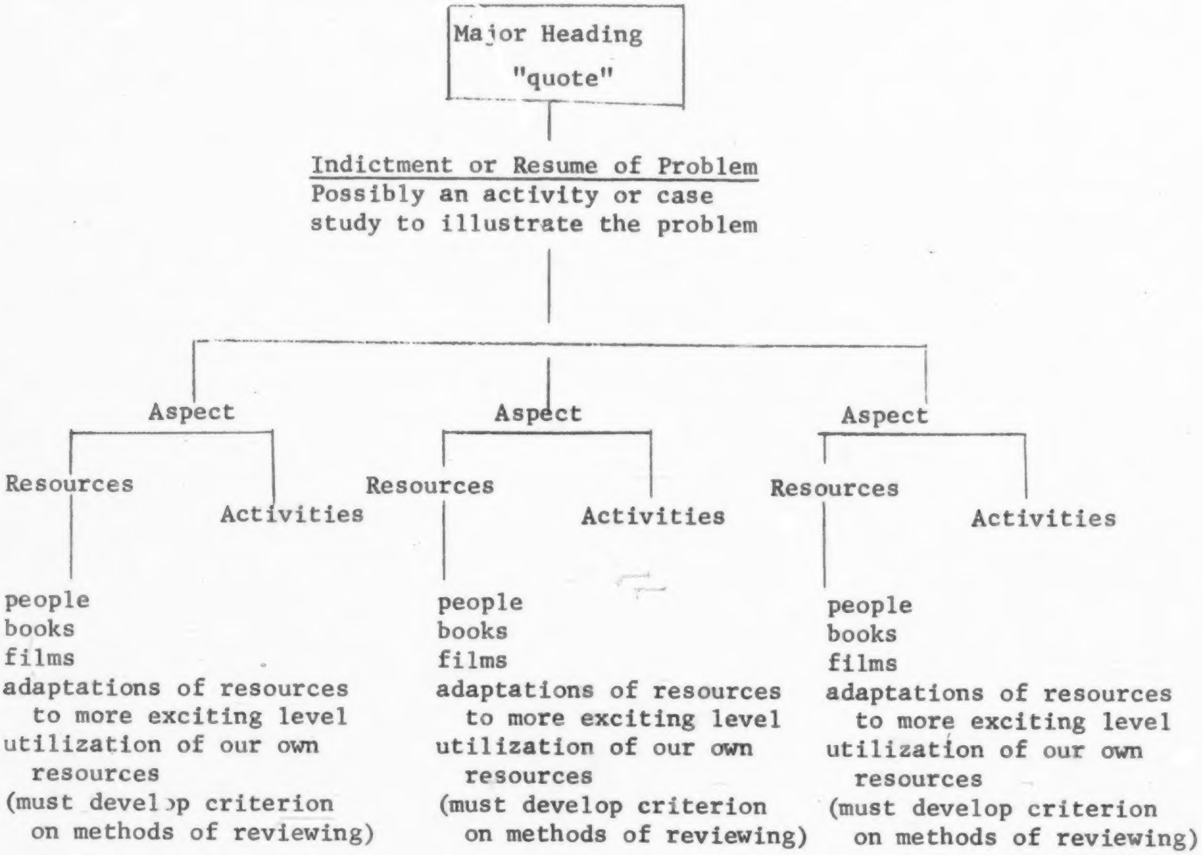
4. Doomsday syndrome (conception of the problem)
    a) paranoia
    b) scare-tactics
    c) recycling syndromes
    d) organic foods

5. Living in the belly of the monster (intermediate solutions)
    a) planning-environmental design
    b) free schools
    c) alternative life styles

6. Education
    a) mass education & attitudes
    b) propaganda
    c) news coverage
    d) advertising

Possible Format for Studies

INTRODUCTION TO OUR HUMAN ENVIRONMENT


Major Heading
"quote"
Indictment or Resume of Problem
Possibly an activity or case study to illustrate the problem
Aspect
Resources
Activities
people
books
films
adaptations of resources to more exciting level
utilization of our own resources
(must develop criterion on methods of reviewing)
Aspect
Resources
Activities
people
books
films
adaptations of resources to more exciting level
utilization of our own resources
(must develop criterion on methods of reviewing)
Aspect
Resources
Activities
people
books
films
adaptations of resources to more exciting level
utilization of our own resources
(must develop criterion on methods of reviewing)

Outline #3

OUTLINE FOR "SCHOOLBOOK"

1. How does this section fit into our definition of environmental education?
2. For each of the different philosophies studied (Buddhism, Taoism, American Indians, etc.)
    a. History: What are the origins of the religion/philosophy?
    How did the religion/philosophy evolve?
    What are the teachings of the religion/philosophy?

    b. How do the basic teachings and concepts of this religion/philosophy relate to environmental education?

    c. The basic concepts and teachings of the philosophical orientations we are studying will be covered in the following way:

        Sufi - reprint from Whole Earth Catalogue

        Judaism and Christianity - quotes from the Bible
        - quotes from the Hearings on the Environmental Education Act of 1970

        Yoga - diagrams of various positions

        Buddhism - instructions for basic meditation
        - dialogue from interview with Judy Hurley

        American Indians - case study of the Black Mesa law suit
        - poems
        - quotes from Indians

        Taoism - dialogue of interview with Bill Doub
        - examples in the different meanings and interpretations from a variety of translations

        Macrobiotics - recipes
        - dialogue from interview with Joes Rosenberg

        Resources:
        See Guide for Reviewing Materials

3. Conclusion: What have we learned about peoples' environmental behavior in relation to their stated belief system? In relation to their own personal environmental code of ethics? Are these the same or different?

Outline #4

OUTLINE FOR "SCHOOLBOOK"

1. Statement on our purpose and procedure for putting it together.
    a. Why did we choose to focus on the values aspect of environmental education?
    b. What were the different phases we went through in deciding on this project?
    c. What is our basis for selection of resources to be included in the book?

2. Statement on our definition of environmental education: the study of problems involving the natural science, social science and philosophy.

3. Philosophy section
    a. How does this section fit into our definition of environmental education?
    B. For each of the different philosophies studied (Buddhism, Taoism, American Indians, etc.)
        (1) History: What are the origins of the religion/philosophy?
        How did the religion/philosophy evolve?
        What are the teachings of the religion/philosophy?
        (2) How do the basic teachings and concepts of this religion/philosophy relate to environmental education?
        (3) The basic concepts and teachings of the philosophical orientations we are studying will be covered in the following way:

Sufi - reprint from Whole Earth Catalogue

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Yoga - diagrams of various positions

Buddhism - instructions for basic meditation
- dialogue from interview with Judy Hurley

American Indians - case study of the Black Mesa law suit
- poems
- quotes from Indians

Taoism - dialogue of interview with Bill Doub
- examples in the different meanings and interpretations from a variety of translations

Macrobiotics - recipes
- dialogue from interview with Joel Rosenberg

(4) Resources: See Guide for Reviewing Materials

c. Conclusion: What have we learned about peoples' environmental behavior in relation to their stated belief system? in relation to their own personal environmental code of ethics? Are these the same or different?

GUIDE FOR REVIEWING MATERIALS FOR THE "SCHOOLBOOK"

1. IDENTIFICATION OF MATERIALS

Title

Author/translator

Publisher

Source (especially for films)

2. PHYSICAL CHARACTERISTICS

Cost

Media: Book, Film, Slides, Tapes, Filmstrips, Records, Game, Other

3. CONTENT

Are the materials factually sound?

Are the materials intellectually sound?

Are the materials presented in an interesting way?

How does this resource relate to environmental issues?

Which of the following are included?

Problems/issues: _____ pollution

_____ air _____ thermal

_____ water _____ solid waste
_____ noise _____ radiation
_____ aesthetic

_____ health
_____ physical _____ mental

_____ resource use
_____ renewable _____ animal
_____ non-renewable _____ plant
_____ mineral

_____ food production/supply/distribution
_____ land use
_____ recreation
_____ population growth/distribution
_____ population/resource ratio
_____ political-legal jurisdictions
_____ planning
_____ urban _____ regional

_____ economic development
_____ urban problems
_____ other (specify) ______________________________
non-issue/problem oriented

Conceptual approach:

Social Science: _____ economics
_____ geography
_____ political
_____ science
_____ law
_____ history

_____ psychology
_____ anthropology
_____ sociology
_____ other (specify)
____

Natural-physical science:

_____ ecology
_____ biology
_____ chemistry
_____ meteorology
_____ health and medicine

_____ physics
_____ engineering
_____ physical geography
_____ agronomy
_____ other (specify)
____

OVERALL JUDGMENT AND COMMENTS OF THE REVIEWER

Overall rating of the materials/program by the reviewer:

ˈ ˈ ˈ ˈ ˈ ˈ ˈ ˈ
Low High

Explanation of overall reaction to the materials/program by the reviewer:

____

____

____

____

Unique characteristics of materials/program not covered in previous sections:

____

____

F-3

MEMORANDUM

TO: Irving

FROM: Reggie

DATE: December 19, 1971

SUBJECT: SADMESS progress report

We have been working on the first section of the "Schoolbook" for six weeks. In that time we have talked to faculty members of the university specializing in various philosophies and religions and with people practicing these beliefs. The university community is the most helpful as some professors we have talked to were already thinking about the environmental issues in relation to their field. It seems that most of the practitioners, however, have not really thought in these terms until we approached them. We appear to be the stimulus for them to relate their beliefs to these current issues. They were not too helpful to us except in very broad terms as it was difficult to get specifics from these people. Now we are very busy reading the references, mostly books, that have been recommended by the following people:

Wally Toevs, Protestant Minister

Errol Templar, Campus Crusade for Christ

Followers of Krishna Consciousness

Pure Land Buddhist Minister

Integral Yoga Institute

Member of Karma Dzong, followers of Tibetian Buddhism

Joel Rosenberg, practitioner of Macrobiotics and Transcendential Meditation

John Hurley, Religious Studies Department, University of Colorado

Robert Lester, Religious Studies Department, University of Colorado

Kurt Johnson, Chemical Engineering Department and member of the Advisory Board

David and Frances Hawkins, Mountain View Center and member of Advisory Board

Father McKeown, Episcopalian

Rabbi Weitzner, Hillel Foundation

Bill Doub, Asian Studies, University of Colorado

John Ecohawk, Kevin Locke, and Darrel St. Clair on American Indians

Now we are having difficulty contacting people at the University because of finals and the holidays. After vacation we will be talking to people in existentialism, Marxism, Japanese culture and Judeo-Christian Studies.

Any suggestions about people to see, philosophies or beliefs to include, or specific books, articles, or films to use would be greatly appreciated. As we talk to these people and read the books, we are writing up brief reports which we will use in the "Schoolbook." We have taped some of the interviews and hope to use the interviewee's words directly. We had hoped to be finished with this section by Christmas, but will probably continue on into January because of the difficulty in reaching some of the faculty members we want to talk with.

RG:clm

F-4

LOOKING FOR A PURPOSE

January 5, 1972

"SCHOOLBOOK"

Statement of Purpose

Under the present pressure about solving the "environmental problem" people have, frequently, not examined issues thoroughly, not taken into all aspects of the issue. Some have said that we do not have a universal framework for looking at the problems that takes into account all facets or forces involved in the problem. Irving suggests we define the "environmental problem" as a "problem or group of problems that involves natural resources (soil, mineral, etc.) and social interactions and consideration or reconsideration of human value systems. Irving suggests that an issue is not an "environmental problem" unless all of these forces are involved. He also suggests that the study of the environmental problem or environmental education should involve the study of all these aspects and their interaction.

Our purpose, in writing WHAT IN THE WORLD ARE WE DOING, is not based on the premise that we are suggesting a way to study the "environmental problem." We are interested in examining human values in light of these present and upcoming issues. We agree that the environmental problem should be studied in a more complete manner, but don't attempt to accomplish this feat. We are interested in studying, what we feel, are causes and not symptoms involved in the environmental problem.

We hope to study belief systems and the institutions that propogate beliefs and some alternative values and lifestyles that have arisen in light of new problems of technology and dehumanization. We are attempting to study historically and presently the advantages of these beliefs and their ramifications on earth today. We do not attempt to make solutions but feel that solutions must be made on an individual basis during a process of self and group examination and re-examination in light of the new problems. Our book, then, is primarily a resource book for the person who wishes to pursue a personal interest in this area. We hope to provide an abundance of information on many different value systems or states of consciousness with commentaries, both by us and experts in that field, on how a belief system might be beneficial to us now or might need re-examination.

We began work on the premise that people act according to their said belief. We have found this to be false in many cases and would like to incorporate this discovery in our book for thought and re-examination, also.

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January 10, 1972

"SCHOOLBOOK"

Statement of Purpose

Under the present pressure about solving the "environmental problem" people have, frequently, not examined issues thoroughly, not taken into account all aspects of the issue. We accept a basic framework for examining the "environmental problem." This would include the study of the natural sciences, social sciences, and human values. We feel that the important integration of the above areas is important in environmental education.

We are interested in the examination and re-examination of human values in light of our environmental problems. We feel that these are the causes, or more basic issues involved in solutions for environmental problems.

We have been working on the first section of our book, which deals with philosophical orientations to the environment, for approximately two months. In that time we have talked to faculty members of the university specializing in various philosophies and religions and with people practicing these beliefs. We have been writing up information from interviews, and reviewing books and films that have been recommended to us. The following are the people we have talked with:

Wally Toevs, Protestant Minister

Errol Templar, Campus Crusade for Christ

Followers of Krishna Consciousness

Pure Land Buddhist Minister

Integral Yoga Institute

Member of Karma Dzong, followers of Tibetian Buddhism

Joel Rosenberg, practitioner of Macrobiotics and Transcendential Meditation

John Hurley, Religious Studies Department, University of Colorado

Kurt Johnson, Chemical Engineering Department and member of the Advisory Board

Father McKeown, Episcopalian

Rabbi Weitzner, Hillel Foundation

Bill Doub, Asian Studies, University of Colorado

John Ecohawk, Kevin Locke, and Darrel St. Clair on American Indians

PEOPLE'S ACTIONS IN CONTRAST TO THEIR STATED BELIEFS

We started writing this book with the idea in mind that people act according to their professed beliefs. Although this is undoubtedly true in many cases, I think that the majority of people do not "practice what they preach." The United States is a good example. Americans are predominantly "Christian," and from our research we have found that there are two main theories in Christian thought on the management of the earth. These theories are found in the Christian Doctrine of Creation. The first theory begins with the assumption that God created the earth and all things on the earth. The earth is then God's possession and should be treated with reverence. Men are stewards of the earth, of the the divine creation. The second theory has to do with the hierarchy between God, man, and all other earthly creations. The theory interprets God's actions in creating the earth as making all for the sustenance of man. According to this theory there is sharp difference between man and other creations.

The American people are not doing a very good job of following either theory. If they were really stewards of the earth, they would not be ruining the nation's land and water the way they are with strip mining in Appalachia, oil spills off the Western coast, etc. A good steward is not one who constantly strives to subdue nature and conquer the elements.

But if the earth and all things on the earth were created with the express purpose of providing man with sustenance, then man is committing no moral wrong; he is simply not planning for his future very intelligently.

Since man is not acting for the preservation of a divine creation, and he is not acting for the future good of collective mankind, he must be acting in the interest of his own selfish ego.

In the course of this project we thought that we would find that the Eastern philosophies would teach of oneness and wholeness with nature while Western thought would emphasize the domination of man over nature and man's use of nature. However, we found that Western teaching, specifically Judeo-Christian teachings, also speaks of a reverence for the natural world and that environmental problems can also be traced back into the histories of the Eastern countries. So we hope that people will be guided to rethink in conscious ways their beliefs which they have adopted, consciously or unconsciously, as their own personal code of ethics in relation to their environment. We hope that their awareness of the consequences of their actions on the environmental problems now facing society and their own processes of acting will lead to a new and higher awareness and create a more personally satisfying and socially beneficial environmental code of ethics.

1/21/72
mlh

"SCHOOLBOOK"

Statement of Purpose

What in the world are we doing???????????????
What are we doing in the world???????????????
World what are we doing in the???????????????
What are we in the world doing???????????????
We are in the world doing what???????????????

This book is a product of a year of work by a group of high school students hired by the SSEC with the rather vague assignment of developing environmental curriculum. This project was funded by the Office of Environmental Education under the Environmental Act of 1970. We began by looking at different methods of curriculum development, both traditional and open-ended. Very soon we were frustrated because the examination of the way other people did their work was getting us into a rut; so we began doing what we wanted to do. We decided that we were not in a position to lay down a set curriculum for someone else. Out of this decision grew an idea for a source book which anyone could use to follow his/her own interests in environmental studies.

The subject matter was a "given": environmental education. The question then arises--what is environmental education? What comes instantly to mind is education about the environment. A simple definition is the process of learning about surroundings. Our environment is the integration of our natural--social surroundings with our values. The focus on our environment can range from internal (body and mind) to the external (immediate to universal).

The book was conceived as an aid to help others choose and design their own curriculum. We have no set procedure for the individual's study. We hope that the person using the book will be able to freely pursue his interests. We do this by breaking the book into sections and sub-sections so one need not read the whole book to find the specific information of his/her interests. It is a catalogue, but it also can be read in its entirity maintaining a basic cohesiveness.

Even though we have no set procedures for the use of the book, we do have "hopes." We hope that people using this book will become more aware of their own environment and how they relate to their surroundings. Acquiring this new awareness will be different for each individual. It will include the examination of both one's personal values and the beliefs of others in relation to present environmental problems.

We see ourselves as the mobilizers of many resources. We have tried to present a broad range of resources including books, people, institutions, and multi media materials. We also include our own commentaries and those of experts on the specific subjects. We do not pretend to have produced an all inclusive reference work--it is just a beginning place for someone to get away from traditional "regurgitative" learning.

This book is not finished, it probably never will be. Every time something new is written, thought about, discussed, or painted, our book is outdated. Someone else may work some more on it, or do a different one, or some of us may continue it later.

1/29/72
clm

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REVIEWERS COMMENTS
ON MS.

MEMORANDUM

TO: Karen, Susie, Irving and Cheryl

FROM: Schoolbook people

DATE: March 27, 1972

RE: In-house review of Schoolbook

Connie is currently typing clean copy of our book. We would appreciate your finding some time, at least a couple of hours, next week (April 3-7) to look over what we have done. We want to be able to make corrections the week of the tenth before sending it to some content validators the week of the seventeenth.

Thanks!

P.S. Do you have any suggestions for content validators?

bja

FROM: Sheryl
DATE: APRIL 18. 1972

GENERAL COMMENTS ON SCHOOLBOOK

GENERAL EDITORIAL COMMENTS:

1. Standardize citation forms - book, article, interview.
2. Standardize titles, heads, subheads.
3. Standardize quote forms
4. Numbers - 1-10 spell out; 11- figures.
5. Informative headings
6. Decide on tone - I, we, etc.
7. Permission for quotes.
8. Standardize pg. numbers.

GENERAL COMMENTS ON ORGANIZATION:

1. Need for an outline of the book, how things will follow, be, or be put together.
2. Need for an Introduction to the book.
3. Need for rational for the differences in space allotted in the different sections.
4. Maintain focus on the environment and don't try to push the philosophy.
5. Should all eastern philosophies be put together.

*People should be responsible for the specific comments on the individual sections that were made by Karen, Irving, Cheryl, Suzie, and Suzanne.

SW:mb

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Comments on draft of Schoolbook

General: Most sections are too long--which is a good thing at this early stage. Ruthless editing will yield sections that can be read in 3-5 minutes. The range & variety are very good; shorten all sections rather than eliminating some. Some of the shorter poems will make good pages; ditto for excerpts of the longer ones.

Graphics and layout will make the book and should be uppermost in your minds during the next stages of editing.

Specific: Much of the material on Eastern religions is interesting but very long. Also not directly related to ecology. I would advise that the connections to ecology be made extremely obvious and direct.

Macrobiotics and Yoga leave me (personally) cold and contribute (in my head) little to ecological matters. If I am wrong, be sure the relevance is made clear.

Material on American Indians is great. There is much more such literature that could profitably be included--"Bury My Heart At Wounded Knee" (?), etc. This is heavy stuff.

More could be made of White's paper (science, vol. 155, 10 March '67) cited in the Judeo-Christian section.

Ditto "Env. Prob" (SSEC Pub #140) In particular, some quotes from the industrialists and other evil types who testified are so crude and self-damming that they will have great impact. Perhaps some of these could be bound face-to-face (side-by-side?) with quotes from various holy books.

A great beginning!

Abe Flexer
Member of Advisory Board

June 7, 1972

Connie and Friends:

This had to be read hurriedly, since I had to be ready to leave town Thursday a.m. However, several impressions might be of use to you--

1) You are concentrating on one of the three major aspects of any problem solution. a) knowledge of the existence of the problem, its manifestations, magnitude, measurements, etc. b) knowledge of solution techniques and economics, and c) the will-ethic-to do something about it. Remove one of these and the problem remains unsolved. At some point you need to transmit this feeling.

2) How are you going to "sell" what you have achieved? "Schoolbooks" come by the gross. What makes this attractive? Marketing may be a "worldly" act but it's important here.

3) I've marked a few minor editorial points. In general you seem to have selected good readings and reported them well. Some of the philosophy is pretty vague, but that's the way philosophy impresses me!

4) Some place I'd like to see some reference to some more directly environmental books--"Sand County Almanac," "Worlden," maybe some of the Sierra Club books. These have much to say.

Curt Johnson
Member of Advisory Board

To: Reggie

From: Cheryl Charles April 11, 1972

Re: The Schoolbook

1. Lotsa work has already happened! Maybe some general comments will be of help...
2. Decide on a style for citations and stick to it.
3. Decide on a tone, stick to it, and make it perhaps more clear, i.e., decide whether the thing is written in the first person, as "I discovered in my reading and talking with people," or in the editorial we, as "We came to the conclusion after reading and talking with people," or in the beg-off literary posture, as "It was determined that ..." Because of the nature of The Schoolbook, my preference would be for saying it all in the first person. If that's the decision you make, even more than is presently written in that way can take that tone. A potential hassle? Will everyone on the writing staff go along with the non-specific "I". That is, will they all be willing to accept "ambiguous credit." An alternative to that--one which might not be much fun--is to initial each of the blurbs, articles, etc.
4. Re the American Indians...
    a. I'm not sold on the relevance of the very long "wakan" tale
    b. Seems to be a need for transition between the "wakan" tale and the excerpt from Emergence Myth 1--maybe not, if your graphics are clever
    c. On p. 14, wish you could identify the Hopi religious leaders, as the rest of the speakers have been identified. In entire section using people quotes, stick to one style, like the name of the speaker at the end of the quote.
    d. On p. 18, suggest maybe the need for an editorial clarifier.
    e. Although it's long, I really like the Pelletier article.
    f. On p. 28, I got boggled by the return to the Black Mesa problem. Suggest that organization be changed for continuity's sake. On bottom of same page, consider setting all the resources apart from the rest of the article on the Indians.
    g. Note awkward sentence structure on p. 29.
5. In Tao Te Ching, make sources of interpretations consistent in citation form.
6. On p. 3 of the Macro. article, I question particularly the legitimacy of the whole argument author presents in his final para., that page.
7. On p. 4 of the Chuang Tzu article, look at the use of the word ecology and see if you think it meets the legitimacy test for word use.
8. On p. 1 of the Hinduism article, "diverse"?
9. On p. 2 of Krishna Consciousness, what is source of the final para.?
10. On p. 2 of Far Eastern Philosophies, what is "toricity?" on p. 3, "stak?"
11. Really liked the Judeo/Christian teachings article, though again, long.
12. These are really quicko comments. There are small notes made throughout my draft of the book, attached. If you've any questions about my ramblings, please ask.

P.S. Note that none of the above is representative of the editor's cry for consistency. Such hypocrisy!!

4/12/72

A few comments on SCHOOLBOOK draft by IM

1. I like the general idea of well-selected items which almost speak for themselves, with a small amount of introductory and connective comment by the editor(s). But in some places a little more in the way of background and setting, and of things to chow connections between pieces and reinforcing the big structure of things would be helpful to the reader.

2. ~~In line with the~~ Re the edtorial comments--there are a number of "I's" and "We's"--in some cases in the same piece--which are undefined. Maybe this will come clear when everything is put together--i.e., making it clear that their is an editor or group of editors for the whole thing, or editors or editor-authors for ~~mmpp~~ subparts. But in no case would it be appropriate to intersperse the I's and We's in the same piece.

3. I know the Project has a Point of View. Nevertheless, I think consideration should be given to some variety in viewpoints. I would rather not have all parts of the Schoolbook telling me, without some variety of viewpoints, that I should eat only cracked wheat and live by the Upanishads.

4. The overall structure, intoruductory material, etc., altho they may be only a small portion of the whole, are very important in order to turn a "mere" collection of writings into something focused and interesting for the reader. I don't think I have seen anything other than the "Outline for 'Schoolbook' which I received at some unspecified time in the past. (Connie and all other typists:: PLEASE DATE ALL PIECES OF PAPER! Writers should also take responsibility for this!).

5. I am attaching several pieces on which I have made notes. Will do some more of these as soon as possible, but hope that these comments will of a little help.

Irving

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SSEC
Social Science Education Consortium, Inc.
Educational Resources Center, Inc. • 443-2211 Ext 8155 • 855 Broadway • Boulder, Colorado 80302

MEMORANDUM

FROM: Irving Morrissett

SUBJECT: Further Comments on Schoolbook manuscript

DATE: April 17, 1972

Since my memorandum of April 12, I have read the rest of the materials for Schoolbook. I commented in that previous memorandum about the need for some additional introductory and connective materials. I have since looked at the "Statement of Purpose" and "Peoples Actions in Contrast with Their Stated Beliefs," which were written in January, I think. These will be useful parts of the Schoolbook. However, I think something more is needed and, particularly for looking at the present state of the manuscript, it would be useful to have an overall outline. I am wondering particularly about the structure and the balance of different sections of it. The selections on American Indians, for example, are extensive, whereas some of the other items are just a couple of pages; perhaps some of these items go together in groups which would be shown up by an overall outline of the book.

One concern I have about the manuscript is that most of the references are incomplete. I presume there is full information about these references some place, but I think it might be easier to carry them along with the manuscript so that they don't have to be scrounged up at the time, and in particular where there are quotations or references that refer to particular page numbers rather than to whole sections or whole books or articles that these should be carried along. We should of course be thinking definitely about some kind of publication and so carrying the references along would be useful for this. Also with respect to publications, we should be thinking about the permissions that would be necessary for quoted items. If there is a strategic item for which permission is granted and we didn't get the permission, it might shoot down the whole structure of thought. Often the difficulty is not actually to get permission, but in some cases there are unreasonable charges for the permissions.

On the references, I don't mean to imply that we would necessarily have a standard format. For example, I think the informal method of reference at the top of page 9 in "American Indians" is a nice way to do it. However, there are certain minimum pieces of information that should always be given about any reference--these include title, author, publisher, and date and place of publication. Prices are not usually given in reference, but I think it is useful to have them and perhaps we should include them or maybe we would just want to include them when we want to point out a particular bargain.

With respect to the matter of structure and balance of the book, I think thought should be given to how much space is given to each of different religions--not that we need to be even-handed in any sense, but if there are large disparities between space given to different religions, there should be some kind of rationale for this.

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Now a few comments on particular items. I think the readings on American Indians are beautiful. This is a lovely collection with very good editor-author notes. Further consideration should be given to the length of various articles, several of which are quite long, particularly in view of the contrast with some very short items. "The Gift of the Sacred Pipe" is a little on the long side--I estimated about 1700 words. "The Case Study of Black Mesa" is about 2500 words, but this length is offset by the varied pace of different viewpoints by different speakers. The article by Pelletier, which I estimated at about 5500 words, is definitely too long. It is very good, but I think should be cut substantially, possibly with some brief reviews of excised parts by the editor.

"Krishna Consciousness" is a good reading, but I have difficulty here because I don't know what other things it goes with. By itself, it should not be an independent section parallel to the one on American Indians. I am very dubious about including the list of addresses with the article.

"Yoga" looks good.

"Transcendental Meditation" has some good content. However, I think that grafts are seldom "self-explanatory" and they definitely are not in this case. I think some very careful work of commenting on these grafts is essential. Again, I am very dubious about including a list of addresses. At the top of page 10 it is not clear whether the commentary there is that of the editor of Schoolbook or whether that is taken from the reference cited at the top of the page. This is something that should be watched in general to make it clear when the editor is speaking and when there is quotation or paraphrasing.

"Zen and Japanese Culture" looks good.

"Far Eastern Philosophies" looks good. A few comments on format are: on page 1 the reference to the Journal of Economic and Social History of the Orient is incomplete. On page 6 at about the middle of the page, I don't think the parentheses are needed. On page 7, the reference under the subheading is not clear as to whether this is a film, although it looks as though it probably is.

"Man and His Environment" looks good. Reference to publisher, availability, etc. is needed.

"Christian Science" is good.

"Judeo Christian Teachings" is outstanding. It has excellent balance with respect to choice arrangement and length of the parts with respect to the whole.

"Hinduism" looks good.

All in all this looks very exciting and I was fascinated to read the selections and the commentaries on them. When the overall structure is laid out and additional commentaries and possibly additional selections are put together, I would be glad to do more looking and commenting.

mlh

MISCELANEOUS COMMENT:

I just looked over the original outline for the schoolbook, and I'm really disappointed that we did not carry through on it. It wasn't thought out real thoroughly, but it still seems as though it would have made a really interesting book. There was so much more in it than just descriptions of a bunch of religious beliefs---I know the schoolbook as it stands is also more than that, but I think you would have a hard time convincing Joe Schmoe off the street of that.

The original idea still soujnds good, it is something like how does man as an individual relate ot his environment and it to him, what are the factors and variables? while the book now may cover some of this, it seems to do so only for those people who allow themselves to be totally influeced by their religion.

I guess my real disappointment is htat we could have done something new and different, instead of just producing a book. It seems that too much time was spent being factual instead of creative. I would rather have had a product that was imperfect, but original than one in which the few things it has are nitpicked down to the last crooked comma. It seems as though the things the schoolbook people ahve spent the most time on are those which could have been done by a lot of people, and did not require the frsh outlook of high school students which we were hired for. I would like to see a book which was successful in getting ideas accross, and hang the content!

Jinny
August 1972

STYLE SHEETS

4/25/72
SW:mb

GENERAL EDITORIAL COMMENTS:

1. CITATION for footnotes at end of quotes:
   --Books: Author (last name first in bibl., normal for footnote). TITLE OF BOOK. City: Publisher, date. XXXpp. (for footnote cite specific pages: pp. xxx-xxx.)
   --Articles: Author. "Title of Article." TITLE OF MAGAZINE. (Issue date--no need for vol. & no.) pp. xx-xx.
   --Interviews: Interviewee's name. (Possibly identify--position, occupation?) Interview at Boulder, Colorado (or whatever). Date.
   a. CITATION for Review of:
      --Book:

      FUTURE SHOCK
        by Alvia Toffler $1.95
      Random House, Bantom Books, 1970
      201 Fifth Avenue
      New York, N.Y. 10019
      (561 pages)

      --Article:

      "Physiology of Meditation"
        by Robert Keith Wallace and Herbert Bensen
      SCIENTIFIC AMERICAN
      February 1972
      pp. 83-90

      --Person:

      From an interview with
        Joel Rosenberg
      Owner of Green Mountain Grainery, Boulder, Colorado
      At the Social Science Education Consortium
      January 1972

      --Film:

      "Buddhism Man and Nature"
        narrated by Alan Watts
      Hartley Productions Inc.
      Cat Rock Road
      Cos Cob, Connecticut 06807
      20 minutes, color, purchase - $; Rental - $25,
          or (distributor):
      Indiana University Film Rental Order
      Audio-Visual Center
      Bloomington, Indiana 47401
      13 minutes, color, rental - $6.50

2. BODY - Titles & Sections
   I. Western
      --Judeo Christian
      --American Indian

II. Near Eastern
  --Hinduism
  --Yoga
  --T.M.
  --K.C.
III. Far Eastern
  --Taoism
  --Buddhism
(Subsection titles centered)

3. QUOTES:
  --different styles of type for quotes
  --indent 10 spaces for each quote over two lines long
  --footnotes for quotes at end of books
  --get permission for all quotes over 300 words
  --use above citation for footnotes at back of book

4. NUMBERS
  --1-10 spell out
  --11 and on figures

5. TONE
  --"I"
  --no use of initials at end

SCHOOL BOOK STYLE SHEET

(This is to replace April 25,1972 memo called "General Editorial Comments")

1. What should we do about writing in first person? The group decided to continue to use "I" when it really seems appropriate, to change to an assertion or the third person when it is not necessary. Do not use authors initials at the end of the section. How about name at the beginning?

2. Heading structure. There are two levels of headings: the chapter or section headings, and subheadings. In addition, there are little inserts separated by boxes or by some other device.

3. BODY - Titles and Sections

   I. Western
      - --Judeo Christian
      - --American Indian

   II. Near Eastern
      - --Hinduism
      - --Yoga
      - --T.M.
      - --K.C.

   III. Far Eastern
      - --Taoism
      - --Buddhism

   (Subsection titles centered)

4. Book Reviews and Book/film / other References. Each section should end with book reviews followed by references of books and other media referred to in the section, or other references which are not reviewed or referred to but which are worthy of including.

   Book Review (also film review?) Section. The citation comes first, centered on the page, followed by the review running across the full width of the page. Citations are of the following sort:

   --Book:

   FUTURE SHOCK

   by Alvia Toffler $1.95

   Random House, Bantom Books, 1970

   201 Fifth Avenue

   New York, N.Y. 10019

   (561 pages)

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--Article:

"Physiology of Meditation"
by Robert Keith Wallace and Herbert Bensen
SCIENTIFIC AMERICAN
February 1972
pp.83-90

--Person:

From an interview with
Joel Rosenberg
Owner of Green Mountain Grainery, Boulder, Colorado
At the Social Science Education Consortium
January 1972

--Film:

"Buddhism Man and Nature
narrated by Alan Watts
Hartley Productions Inc.
Cat Rock Road
Cos Cob, Conneticut 06807
20 minutes, color, purchase - $; Rental - $25,
or (distributor):
Indiana University Film Rental Order
Audio-Visual Center
Bloomington, Indiana 47401
13 minutes, color, rental - $6.50

5. References in the body of the section. There will be no footnotes. Books and other media referred to in the body of the sections will be asterisked or identified by some clever symbol yet to be invented. That same symbol will precede the Reference section to identify it.

6. Section at the beginning of the book, called "How to use this book" or some such title will list features of the book. Among them, include a statement to the effect that citations books and other media referred to in the text are given at the end of the section in the References section.

7. QUOTES:
   --use a different style of type for quotes.
   --indent 10 spaces for each quote over two lines long

--cite page numbers in parens at end of quote(?)

--get permission for all quotes over 300 words

--include book reference for all quoted books in reference section.

8. NUMBERS

-- 1-10 spell out

-- 11 and on - figures

June 5, 1972
M.D.

F-7

CALENDAR

SCHOOLBOOK CALENDAR

MONTH Revised 5/22/72

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
MAY 21	22 Meeting	23 Prepare book summary Schedule content validators Revisions contd (incl. illustration thinking) →	24 Interview c.v.s. →	25	26	27
28	29 Memorial Day--Holiday	30 Interviews contd → 1st rev. of Far East & Indian done Rev. contd. →	31 Far East & Indian retyped Last day of school!	JUNE 1 Whole ms. sent to Adv. Bd. 9 a.m. meeting all SADMESS	2	3
4	5 Interviews cont'd → Revisions cont'd →	6	7 Interviews done	8 ROUNDUP	9 ROUNDUP Adv. Bd. comments returned	10 ROUNDUP
11	12 Revisions cont'd →	13	14 All revisions done	15 Natural history plan →	16	17
18	19 Natural history--write, photo, draw, etc. → Connie gone →	20	21	22	23 Natural History done	24

MONTH____________________

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JUNE 25	26 Go over book page by page; work out overall conceptualization, etc. →	27	28 Book design (w/consultants)-dummy, final artwork, etc. →	29	30	JULY 1
2	3 Holiday?	4 Fourth of July --Holiday	5 Book design cont'd →	6 Design done	7 Final editing Finish illus., etc.	8
9	10 Final editing cont'd. → Finish illus. etc. → Get bids from printers →	11	12	13 Final edit. done All illus., dummy done Choose printer	14 FINAL DEBRIEFING Last day of work for students Bastille Day	15
16	17 Karen's vacation → Type ms. → Adv. begin?	18	19	20	21	22
23	24 Karen's vacation → Type ms. →	25	26	27	28	29

MONTH_______________

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
30	31 Ms. typed Ms. marked for printer	AUGUST 1 Ms. to printer	2	3	4	5
6	7	8	9	10	11 Galleys returned 5 p.m.	12
13	14 Proof galleys →	15 →	16 Return galleys to printer 5 p.m.	17	18	19
20	21	22	23 Repros returned from printer Proof and paste-up →	24 →	25 →	26
27	28 Paste-up cont'd →	29 →	30 Camera-ready paste-up to printer	31	SEPTEMBER 1	2 Printed by September 15th

APPENDIX G

Boulder Experiments book

(Not Included)
in ms.

APPENDIX H

Sunshine Unfolding book

(Not included)
in ms

APPENDIX I

Documents Related to "A Backwards Look"

I-1 Memo from Janey Brunton

I-2 Excerpts from Retreat Transcripts

JANEY'S MEMO

To: All SADMESS people

From: Janey

Some of the discussions and raps I got into at the Roundup on Thursday got me back to thinking about the point of this project. We are getting to the point where we are going to have to start thinking about our project as a whole, and not just Schoolbook or B.E. Therefore, I propose that we spend not more than two more weeks working on individual projects. Thses can be a very concentrated two weeks, but after that individual things should take second priority to the whole project. It is more than just writing the final report, we have got to think about what we really want to say to all those people out there.

If everyone else got as many iddas from people at the Roundup as I did, it might be a good idea to have a meeting of one or two hours on Monday or Tuesday to debrief the thing before people lose their thoughts.

Over the next two weeks or whatever it would be good if people could work on clarifying what they think the most important things are to get accross, an hew to say them. In fact if you could write some things down and give them to me, that would be great, because I want to get started working on this.

Something else to think about: I would like to try to pull off another retreat before we start working on this so we can get it together and go!

Comments anyone?

Grabble

ok peo ple, we have been collecting money all year from oe for developing environmental curriculum, now what are we going to do with it? snarf

i feel like there are some imporfant hings we wqnt to say about education so we ought to get our bodis in gear not to mention our heads, and find th some way to spit it out for the general public or any one interested in education their own or some one elses. Gezorninflatz

one guy at round up asked us for the polished edition of our slide show to show to the board of education in seattle or someplace, because they are trying to get some kind of outoftheclassroom environmental program going there, but the bored of education wants some assurance that something will come of it, and he thinks BE would be a good example of something that high school kids could do

there must be similar things that could go on with the schoolbook.

also the idea about making tapes of how we feel might be good

you know, something like "high schol kids discuss education"

maybe it could be used in a classroom as an introduction to an out of the classroom independant study unit, kind of inspirational, it would get more attention than if we wrote the same thing down

more than that has to happen though, a lot of the underlying philosophy of boulder experiments and the schoolbook is the same, even if we have never stretched them out together end to end, we need to drag that out into the open, and then attach both projects to that as two different ways of going about the same thing.

jon has got tho redo the slide show so that it somehow says something about what we are doing, and not just be a bunch of pictures of the fair.

We don't have much time.

I-2

Excerpts from Tape Transcripts
of June 1972 Retreat

.....

Reggie--Do you want to start by telling us how you felt working on the Schoolbook?

Janey--Well, I didn't feel like I was really uncomfortable working on the Schoolbook, but the Boulder Experiments thing seemed much more exciting. I got into doing the volunteer things for it.

Alan--For about four or five days I kept giving her things to do like secretarial work.

Janey--I wasn't really sure if I wanted to be in there working on it or not or if I should just...I had written my section for the Schoolbook and left all of the crummy details for everybody else to do.

Steve--Which was worse for you to deal with? The fact that you left the Schoolbook or that you were coming in to our project? Did you feel bad about leaving the Schoolbook or did you feel worse...

Janey--I felt kind of guilty about leaving it.

Steve--Which was stronger? Your feeling of coming into Boulder Experiments, like whether we wanted you or not or the process of leaving their project?

Janey--I really didn't make a decision on it until after the fair when somebody asked me if I was going to stay with the Boulder Experiments or go back to the Schoolbook.

Reggie--I thought you had made the decision--it seems to me--you made the decision before the Schoolbook sort of stopped gears...

Janey--Yeah, I guess I did. It just doesn't seem like I...I was just getting more and more interested in the fair and less interested in rewriting the sections. I really hated doing the Indian section and I was anxious to quit doing that and go work on the fair.

Reggie--Did you choose to do the Indian section?

Janey--I think so, yeah.

Susie--I got the impression that you really weren't that interested in the Schoolbook from the very beginning.

Janey--I liked the way it was originally going to be when we were going to have lots of different things and getting all sorts of environmental things, but when it became totally religion and philosophy it just sort of turned me off.

Susi--Did you feel bad about it when it went that direction, because you were kind of a minority?

Janey--I was willing to go on with it as long as it was going to be a lot of things and then when it turned out that it was not going to go on to more things, I just got less and less interested.

Susi--But did you feel that you didn't have any control over the situation? Did it bother you that much?

Janey--It seemed like everybody else wanted to do the religion and philosophy stuff. So, I decided to kind of "go along."

Reggie--I remember being kind of sensitive to your going along, and that we were not going to get to the kinds of things that you were really interested in. I felt really bad and at times it became obvious that we were not going to have time during the year to do that. But you have been a good sport.

Rocchio--To go on with our discussion about alternatives, if there had not been Boulder Experiments, what would you have done?

Janey--Kept on the Schoolbook I am sure. It would have been interesting doing the graphics and stuff. It just didn't seem like it was accomplishing anything I wanted it to accomplish.

Karen--Would you have tried harder to bring the others over to your side or to somehow get them to accommodate what you wanted...

Janey--Well, really, I sort of did that. You guys were already trying to decide what types of sections and I was the only one that wanted to do it--nobody else did. I felt that I would have to just go and do it by myself if it was going to get done.

Reggie--Yeah, it got to the point that that was the only way it could have happened.

Susanne--Sort of along that line I wonder what would have happened if just one or the other of the two projects had been there--if the opportunity to quit would have been more open.

Reggie--To quit...you mean...

Susanne--To quit the project.

Susi--Well I thought--did you think it wasn't very open?

Craig--I thought it was very open.

Dan--It was?

Craig--no, not.

Janey--It never occurred to me to quit.

Reggie--I think we would have felt a sense of failure...

Susanne--I don't know. It just seemed that like at the beginning that we were just muddling around.

Steve--I kind of assumed the responsibility for...well the last time Jon and Allan wanted to quit I kept telling them that they were obligated ...I don't know...it is just a rule that I felt was...

Alan--I can remember a few times when I thought what a "pile of shit. I am going to quit and go concentrate on something else." Steve would say, "Aw, come on man. You can't quit. You've got to at least stick it out till next summer. You can't quit. We are all depending on you."

Irving--So there was this strong feeling that everybody had to stay in. Well, it seems to me that there ought to be more openness than there was, both for people to quit and also to ask people to leave. I think there was not freedom either way on that. I don't know how much of that there ought to be because that is kind of the opposite end from encouragement that Steve gave to Allan which in the end turned out to be productive. I don't know what the right degree of openness is, but it should not be that anybody leaves with the flick of an eyebrow or the project says "goodbye" if you don't show up for work one day, but there must be some degree somewhere in between.

Janey--I didn't feel like I wanted anybody to quit because it didn't seem like it would be the right thing to do.

Reggie--The other thing that it does is to avoid confrontation on the conflict, if it is too easy to quit.

Irving--Yeah. I don't think it should be too easy but it shouldn't be too hard, either.

Rocchio--The phenomenon of it is that at times when it is really easy, I've

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seen groups work twice as hard to keep everybody there than they would have if the rules had been stiff.

Susie--I am wondering how it was expected. Was it set up that way to begin with? I never thought of it that way.

Craig--Well, part of the thing was "you will work through next summer." That was part of the deal and we had to weigh that and we had to take that into consideration, so I felt that we had to stay. When Jon said he was leaving around the middle of June, I was really pissed off because I didn't see why he applied for the job when he knew he wasn't supposed to do that. That kind of burned me up.

Rocchio--Would it be valuable for future projects to add a situation in which you have a one-year obligation (a) such as you were talking about and (b) it would be possible that at a certain period of time, which everyone here could probably pinpoint now, at which you couldn't really make a good decision because not enough time had passed, yet you really should not have to finish the whole project.

Susie--An escape hatch thing.

Rocchio--Yeah, in other words, a Peace Corp volunteer volunteers for two years of service; but when he gets into the Peace Corp it becomes clear to him immediately that he has some obligations to make some decisions during the training that he should stay or go. After that there is a more firm obligation to stay out the remaining two-year period. They use the training period as a time for self-analysis, a time for deciding whether this is really the thing that you want to do or not. This is based on the idea that if you don't know anything about something you can't very well make a good decision unless you have tried.

Susanne--We didn't have any leadership. That is what we were really lacking. We didn't have any binding strings that we all knew about. It was just "environmental education."

Reggie--We were saying that when we tried to give any leadership that you could not hear it or take it other than...

Susanne--I don't remember any, maybe I...

Reggie--You didn't see it...

Allan--That kind of goes back to what we were talking about earlier. I think it is a very important lesson and a very important part of the project--it goes back to sort of feeling yourself out. It takes time. I did not feel a lack of leadership. A couple of times I got worried that we would not come up with anything, but I just sort of felt that it was just going to take people time to learn about organizations and their set up in a more personal way. The way that we learned it last year, we are not likely to forget it as easily because it was more personal. We didn't have the leadership at the beginning and because of what we learned the value and necessity of having it.

Reggie--What you are saying is that you had to get your heads together.

Allan--Yeah. We had to learn what leadership was and what group action was before we could do it, and it took quite a while to learn.

Karen--And also what lack of leadership would mean.

Allan--Yeah, right. When we didn't understand what this leadership and group action was then, well, my own tendency was to be defensive. Like, a lot of time when there is something unknown. Like you hear a sound in the middle of the night and you have a gun you might go out, "Who is there?" "What is it?" Maybe it is your brother coming home from a drunk or something--nobody that you are afraid of at all, but it is an unknown at the time. This group action, leadership idea was an unknown to us.

Steve--We had to feel the situation out. That is why I got so mad when you were structuring the whole retreat--"we're going to talk about this for three hours." It wasn't that I objected to talking about those things, it is that I felt like I really don't know what is going on and I don't really know you and I don't really know the people I am working with and I don't want to get into a heavy situation till I can feel things out.

Allan--Like this retreat, we structured it, more or less the group did. People were interested in structuring it. We realized the need to have it structured.

Reggie--I want to get back to Janey because it was something I was very sensitive to all year as I didn't feel that we really dealt with her feelings. I don't know what you were really feeling.

Janey--It never occurred to me to quit. The only time I was really wondering if it was really worth it for me to be doing all this, was when I found out that it was cutting me out of all of the other things I wanted to do this year because I had to work the three hours every afternoon. I could not make rehearsals and stuff and that is the only time it bothered me at all. The rest of the time it was not perfect but it was an awful lot better than sitting through Spanish or some other kind of class I would have had to take.

Reggie--How do you think it might have been better for you? What would you change about it?

Janey--I don't know.

Susie--Did you feel that you were kind of an outsider?

Janey--Well, it seems like I had my own idea about it being another Whole Earth Catalog and it seems like it just got farther and farther away from my whole original idea. I was not my thing after all. It was like I had this great idea but nobody else quite understood it.

Karen--That's kind of the feeling I got every once in a while about the whole project.

Rocchio--How did you feel when that happened?

Janey--Well, it sort of happened gradually. We had about five or six sections we were going to do and...

Rocchio--Were you angry or were you frustrated?

Janey--Well, I was sort of frustrated. I thought it was going to be kind of boring to do the religion and philosophy first, but on the other hand I had the choice of going off and doing another section by myself or going along with this.

Steve--Yesterday or the day before we were writing an outline for the [B.E] book and I said that this one section should go first. She said, "Well, I really don't think so. I think it should go last." I tried to explain to her why it should go first and she kept arguing that it shouldn't, and that is all the further we got. It is not like she was really just arguing that it shouldn't, and she really tried to make herself clear, she just said this is what I think and you can think what you want. I kind of felt things with the fair getting out of hand at different times and my reaction was that maybe I just would not come in the next day. I felt like I would not come in and maybe things would be fixed when I got back or I really

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didn't care if somebody wanted to take it over--they could do it. But I always came and I always told them that they were wrong.

Karen--It is funny how you get your own idea and once you share them they are not your own any more. That is really frustrating in one sense because you feel like you own the idea and they don't have any right to mess it up and yet the idea can't become real unless you let the other people mess it up. I mean, your idea is no good unless you share it. Yet when you share it it can be very frustrating.

Reggie--- [To Janey] I think the frustrating thing I felt was happening in the Schoolbook was that I thought you had a lot of really good talent that came out in your application and a lot to really offer and we could not really...it wasn't really being used because you weren't fully involved and this is one reason I was trying to help you get involved in some way.

Susanne--I had those same guilt feelings.

Susie--You did? About what?

Susanne--That we were always treating her second rate, and that she was really such an intelligent person she was really getting shafted...

Rocchio--Did you ever share that till now?

Susanne--I'm not sure. I think I have talked about it but...

Allan--I can remember when we were juniors, Janey and I were in a group called "Life" group and now that I think about it she was sort of second rated then, too. Steve and I would sort of attack her...

Susie--This Steve?

Allan--No, Steve Fuller.

Janey--Yeah, I always felt like I was second-rate.

Reggie--Did you get that impression from this year with the project?

Janey--I don't know. I have a lot of trouble looking at myself objectively. A lot of the time I think, "Well, they are not really putting me down."

Rocchio--Did you ever feel that way--that you were treated like dirt in this project? At any point? Not looking at yourself objectively--how did you feel about it?

Janey--I don't know.

Susanne--Do you really want all this feedback? Do you want us to stop?

Janey--I remember being really confused a lot, I mean...

Reggie--Some of it was positive. What we have been trying to tell Janey is very positive.

Sheryl--That is the feeling I got. I didn't think you were a nothing, but I didn't think that you could ever get into anything. You never really got into the Schoolbook and now I sort of see you wandering around in Boulder Experiments with the product of a book and it just does not seem like you are turned on by it.

Reggie--But during the beginning of the fair when you really got involved with something, you really went.

Sheryl--Yeah, and the same with the Schoolbook. You were really good until something happened and you lost interest. Then you went to Boulder Experiments, but it seems like this is happening again.

Susanne--That's because Janey is too creative.

Steve--There is one thing that I don't understand. It's like, I have read these things in the paper where you have gotten all of these awards for debates and all of these academic things and it just blows my mind because I can't believe that is Janey, because these things don't come out in your SADMESS relationship. Just by reading the

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paper and seeing all of your medals and stuff like that, I would guess that you would be a super-academic person, super intellectual, and really know the answers. But you don't.

Janey--In the past I have acted more like that and just gotten people super-turned off. "What does she think she is--she thinks she knows it all."

Steve--But sometimes when a group is at a total dead end Janey will come out with this fantastic statement that clears everything up and everybody will sit back and look at her and wonder what is going on.

Janey--As long as things are going okay, I just hate to push myself into it in fear of people saying, "Shut up. You don't know what you are talking about." or "Maybe you know what you are talking about, but we don't care."

Reggie--I think what the group is saying is that we have sensed from you all year long what you have to offer but somehow it just wasn't shared. It didn't come from you to the group.

Susanne--Yeah, but it wasn't your fault. It was very much our fault.

Janey--It was like a lot of times I waited for somebody to say, "We want this from you." I don't want to put something out if it is not wanted, because I have been put down too much. Not from this group, but from other groups.

Reggie--Then it was your past group experiences that in a way crippled your getting into this group.

Janey--I have been doing a lot of other things outside of this group this year, and I am finally getting to express myself better--not completely, but a lot. I still have a long way to go.

Reggie--I don't think we have any idea of a lack of kind of sharing yourself with us.

Steve--I think Sheryl and I are very aggressive and we like to share ourselves with everybody. I don't think we are talking about faults--like when you said, "It is not your fault," I don't think it is our responsibility to try to pick her brain and unlock all of the answers. I think in the past you haven't been aggressive because it has been held against you, but I think it would have been very helpful this year and I think you should be more aggressive.

Janey--Yeah, I used to be a lot more aggressive, but it was like I had to prove something and I feel comfortable nowadays because I don't feel I have to prove something if I don't run out and be aggressive.

Steve--Maybe it is a competition thing.

Janey--Like all through junior high, I felt like I had to prove myself and I got put down from it so much that I didn't feel like it was worth it.

Rocchio--This is a difficult question, but, if you didn't know all that about her past, were you satisfied with her contributions as an unknown entity? That is a really tough question.

Steve--I think I would have known that she was super academic, super minded, because it comes out every once in a while and it just blows my mind because it is right and it clears things up. I don't think she did it enough.

Rocchio--In real terms, not compared with her background?

Steve--Yeah.

Janey--There are times when I feel like I know what I am doing so I do it and don't take anything from people. Like when I was doing the outline yesterday. We were supposed to be doing it as a group and I just figured...well, Steve was saying something about transportation covering buses, bicycles, and this, and I am saying that is not an outline. We want objectives, how did it work and why did it work and that kind of stuff. I just went through and did the outline my way.

Reggie--As a group though, even though you each felt very strongly about your different outlines somehow there has to be some way that we can put them together to work.

Janey--Well, if Allan had been writing it, I probably would not have said a lot. I would have said some things, but no one would have heard me and it would have just gone the other way. But I was writing my stuff into it.

Reggie--So, Allan was more accepting than Steve?

Janey--No, if Allan had been writing it he probably would have accepted what Steve had said but I would have been pretty much left out of it. Like a lot of times I will throw something out and nobody will pick it up, so I figure it is not worth it.

Steve--You are usually a step ahead of somebody though, and, like, I have problems relating to you because you are a step ahead of me. You are thinking beyond what has just been said and it is perfectly correct, but it is hard for me to relate to that. That is what was happening in the outline. You were two pages ahead of me and I said "What page number? Wait a minute."

Susanne--I feel like we are being brutal...

Susie--I feel like she is enjoying it.

Janey--I do like feedback.

Susie--You said earlier that a lot of things had happened to you this year and you were trying to open up and maybe this gets us to what Reggie was saying, too, which is that when you have these things to offer and people don't--either they seem like they are ignoring you or they possibly are--what to do about that, if anything. I think this is a problem that I have certainly had in my life and still have...and maybe a woman working in a group with men, or with other women, and there is an opportunity for you to take some kind of leadership, how do you do that and why is it accepted by the other members of the group? It means a bunch of skills that you have to learn, and why it is that they are acting the way they are...and maybe to do more processing of what is going on. I don't know whether that is the answer or not.

Janey--It seems that what I have been trying to do all through school...I have been the intellectual type...until last year...I have been trying to develop the social side. At least I felt I was trying to work on emotions and feelings and all this other stuff.

Susie--Well, maybe, is it that you are going through this really important part in your life this year? And the project was only one part of that?

Janey--Yeah. Well, it seems like everything I had been doing this year has all blended together really nicely. Except school! I didn't really talk about Our House at SADMESS or the other way around because, the way I look at it, neither one is interested in the other.

Reggie--I think I would have been interested in it.

Janey--Well, sometimes I would try to say something about it, but...

Susanne--I think you got blank looks...

Steve--I think it is the way you delivered it, too. Because you would try to tell me something about Our House and you would say, "Do you remember Fred Schmo?" and you would try to tell me about what he did yesterday and you would continue talking about him and I don't remember him or I never met him. So sometimes...I have been familiar with Our House for some time and I should be able to relate to it. So many different things have happened, and you don't relate to it in terms of concepts but in terms of different people that I don't know.

Janey--I very often try to get the concept across relating through them.

Susie--This sort of brings up a--I don't know whether this is an appropriate time now--but in the project it seemed like there were insiders and--some of you who were definitely inside and sharing and...Sheryl and Steve and Allan most of the time and Susanne and Craig most of the time--and people who were on the outside were Janey and Dan, and most outside was Jon. I mean, that is my ranking of it. I don't know whether other people saw that ranking the same as I did but I am curious about how the people felt who...

Janey--I really didn't feel like that because I just sort of assumed that... I wasn't asking to be pushed out...

Reggie--I think it was a kind of total involvement and I don't know, sharing. We know an awful lot about sharing life, maybe a lot of this has to do with the community. Steve seems to be very open and he was always jumping lock, stock, and barrel, head first into the project, where some people to different degrees kept very aloof. Is that the kind of thing you are referring to?

Susie--Well, not only this private...but it wasn't clear...like I don't know how interested you were--or Dan is a better example of this. In the last couple of weeks my feelings about him are really good because we have been working together. It might just be that I haven't ...it might just be my own personal experiences rather than other things. I guess the reason I asked the question was to find out whether they were comfortable with that or whether they were uncomfortable. You just said that you really didn't feel that outside of it, which sounds like whatever it was it was fairly comfortable to you. I would like to find that out from Dan--whether he was fairly comfortable with his role.

Dan--At the beginning of the project I was kind of uncomfortable for a while. The first day when we were setting up the office I thought this was really going to be far out because these are all far-out people. My first reaction was that anybody as right on as these people seem to be is going to realize that I am short-haired, eat at McDonald's and can still be right on too. That took a while to get across.

Susie--You mean you thought that people were putting you down because you had short hair and ate at McDonald's!

Dan--Yeah.

Karen--Your hair has gotten longer.

Susie--I thought you were absolutely the nicest young man I had ever seen.

Reggie--Susie fell in love with you.

Allan--I remember like the first week we were there Dan was really...maybe aggressive is a bad word, but that is sort of how I remember him. He was down there getting all of the couches...

Reggie--And then it stopped. Well, I felt very awkward in my relationship

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with you and I remember one evening going home and not knowing what to do because I felt like you had gotten to the point that I could not say anything from any frame of reference without in some way getting a signal from you that I was picking on you. And today was the first day that I feel like I got any...

Dan--No, I never felt you were picking on me at all.

Reggie--I should have checked that out a lot longer ago.

Irving--That business about short hair and McDonald's--is that political and social views that go with that?

Dan--No.

Irving--You don't feel that...

Steve--I got over Dan really quick. At the first retreat we came up here and I guess it was Dan, Jon, and I. At that point Jon and I were pretty buddy-buddy and we came up here with Dan. He was singing and running around the house getting everything ready and we were sitting there and couldn't understand what he was singing these crazy songs for. Jon and I would go out for a smoke and come back in and face your meeting. After meetings with Dan and stuff like that I figured out that he didn't think any different than I did. He really made me laugh some times...like, he seemed really fresh to me, like he was really pure and unspoiled. He always really enlightened me and, like, I got over him really quick. I had prejudices at first. I though, Dan Bouricius, I know him from somewhere, like junior high. But, it was really a good experience for me.

Susie--I sounds like Dan didn't get that feedback. This business that Reggie is talking about--checking out people about what we are getting from them, that is a rule we never used--except where interpersonal relationships were good we might have done that--but people didn't do that with Dan. Particularly during this last couple of weeks that we have had so much fun doing that reading stuff, I really feel lost. I feel somewhat responsible, too, that you were on the outside. I don't mean personally responsible, but that we should have done something better so that you would have enjoyed it more.

Dan--I didn't feel out of it for too long--it was just pretty much at the beginning of the project.

Susie--You did it with the Boulder Experiments thing, too.

Dan--Yeah.

Susie--So, what was going on then?

Dan--Well, all of a sudden the Schoolbook said, "Okay, we will quit for two weeks and everybody is going to work on Boulder Experiments." It so happened that you started on Monday and the first two days I was sick. I came in Wednesday and everybody was running around and I had come up with more ideas on the Schoolbook as to what I was going to do. I was just lost from the very beginning.

Reggie--The worst thing was that people would ask you to do something and it just would not get done.

Dan--Yeah, I know. A lot of it is that I just didn't have the background of the fair itself. Even a minor part of the fair would be so integrated with the fair that not knowing anything about it made it impossible to really get into things.

Steve--Well, I can understand that because that is what happened to a lot of the volunteers. We would give them an idea and tell them to work with it and mold it into something and that is exactly what we did to Dan, too.

Dan--I should have said something about it, though.

Reggie--Yeah.

Rocchio--I have two things to interject here. One, just exactly what you said--you should have checked it out or expressed that feeling that you were lost. And the other thing that I hear is that several of you are saying "We should have taken some responsibility to get so-and-so doing something." The result of not confronting the situation--I don't mean confrontation as a conflict, I mean it as sharing information with each other--to take the responsibility puts it on the wrong people. If you work in devious ways to get somebody involved, how in the world are they going to know that is what you are doing?

Steve--That is really difficult to do. Like the first night we came up here, Jon and I asked Dan if he wanted to go out for a smoke. He said, no, that he didn't want to and he really didn't need it. And I said to myself, "I've been trying to say that for three years." He just said it! There was a tie there but I couldn't just say, "Hey Dan, I think that is really cool. And it is not that you are different from us because you don't." I just couldn't seem to say that.

Rocchio--Maybe something else I am hearing is that it is all related to task-oriented things. Did you really stop regularly as you had kind of promised yourselves at the last retreat to sort of stop the process? Did you have sessions like this one?

Allan--No.

Susanne--We tried! Steve tried his head off!

Karen--It wasn't regular, but I think we occasionally as things got really --days that we started on a task and realized that what we wanted to talk about was really the process or what was happening. But it wasn't a regularly scheduled thing.

Reggie--I think we tried. I don't think we ever really got to these kinds of things.

Rocchio--What do you mean by scheduled? If you wanted to do it, you did it. It is not scheduled in the sense that you put it on a calendar, but it is regular in that everybody accepts the idea, as I thought we left here with kind of the idea that you wanted to do that.

Susie--There were certain things like that, like the logs that we tried to keep. We did try scheduling things and that sort of broke down. People talked among themselves--and that is another problem. This thing with Dan--I remember that Reggie and I were very concerned about him during the fair and he wasn't around so we could not talk to him. I don't know why that wasn't followed through after you finally got back. There were times when there was sort of a conflict between the adult staff there--"What should we do about Dan?" Our decision was to find out what he would like to do. But you were not around, so at that point we could not really find out.

Reggie--I was getting very flustered because of all these other things that were happening on the book.

Susie--I didn't know...we didn't know that you were sick.

Reggie--I didn't know that you had even called in to say you were sick.

Rocchio--Wait a minute. If you are upset with his being the way he is and you take the next step and say that you want to solve that by finding out what he wants to do, it is again surreptitious, because you are not confronting him with what you really feel. You are saying, "Let's solve the problem by asking him what he wants to do instead of saying

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I am uncomfortable with where you are at." Like, I don't know.

Reggie--So what you are suggesting is that we should have just said to Dan that we are feeling uncomfortable because we don't know what is going on with you.

Rocchio--Instead of taking the next step, that is the most important thing.

Susie--And what I am saying, though, that in the reality of the situation we were all running ourselves ragged that week and Dan wasn't around and so that is how things happened and I don't know what you do under those circumstances. It is almost realizing that the interpersonal relations are the highest priority and that the fair was less important than Dan and then you would have called him up right then and said, "Are you really sick or are you just home goofing off?"

Rocchio--Yeah, that is what you should have done.

Susie--But we didn't.

Karen--We did that a number of times, though, with Jon.

Susie--That is true.

Karen--It seems like we did do a lot of that kind of thing. Thinking back on it, a lot more than most projects I have been involved in. We did do it with Jon because I guess we were super concerned about Jon.

Allan--Jon was a little different than Dan. He was always talking about what he does and what he did...

Sheryl--It was stuff that he never did...

Allan--But Dan never did that sort of thing. Jon was like a continuing narrative on a younger-generation profile...

Susie--Did you feel like an old man?

Allan--I don't know.

Karen--I think part of the reason we did it with Jon was that we sort of--or at least I felt--that Dan was more able to take care of himself. More so than, just about anybody in the group, really. I didn't get as concerned about...

Rocchio--There are two phenomena about that plot. One is the skill of doing what you are talking about--this is something that everybody of the American society walks cold out of knowing what to do--giving and receiving feedback. This is a skill that is not learned in this society. Secondly is that you have to put it as high a priority as you indicated, as the task. You can't separate those things. One is the skill which is practiced, which builds upon the fact that you put it at a high priority. Whether it is the high priority that causes you to get the skill or the concentration on getting the skill that causes it to happen regularly...if you just assume that it is going to occur, it does, sure as the last day on the project.

Susie--You know what also is involved in here is emotion. I am trying to think why I didn't bother to tell Dan I think he is groovy because I think he is. Part of it is because I am embarrassed.

Irving--This is related to what we were talking about the other night. Don't you feel that that might be seen as patronizing?

Susie--Or sort of like a lecherous old lady.

Irving--But I am thinking that you tend to when you are doing conscious group process, but you forget about in between times--and it ought to be done individually as well as in a group--and that is, checking out communications, which is what we have been talking about, and searching out talent in other people and giving reinforcement of appreciation to other people. We are short on all of those things. I have got a hangup about that because it seems to me to be presumptuous. That is what you do with kids, you know. What is this unequal relationship between grownups and kids? You go out to kids and say, "What is the matter little girl?" or "Hi, little boy, what is with you?" I have that block about saying it to, certainly to Rick, who is within 20 years of my age, and to Sue and to Dan, to whom I would feel now you are not a little kid now, you have grown up. I have to be careful not to be patronizing and that stands in the way of doing these other things which are legitimate, functional things.

Reggie--I think that is saying a lot about you because just expressing concern about another human being is not patronizing.

Irving--I am saying things about me, but I feel that it is also true of other people and I think that is what makes it hard for adults to do it with each other.

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Karen--It is difficult to give yourself good feedback. Remember when we went over these applications, everybody was saying, "Well, we just B.S.'d. We had to talk about ourselves." and it made everybody terribly uncomfortable...Also, I think that you can get too much feedback from other people.

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Rocchio--I have a couple of things. One is, I really believe more firmly every day that the whole question of feedback is vital. It is not a question of what is more important, the task or the other thing. I think it can be explained in terms of...if it is a task, it simply gets done better when people working on the task have some kind of feeling for each other. There are a couple of ways to express feeling. One is to touch. That is not a cultural thing to do, but we are a very verbal culture. The most likely means of us communicating our feelings with one another is verbal. But as I said before I think it is a skill you get, it is not just something you walk into. Several of you said that, too. Those who are extremely task-oriented should find a place for human relations because it simply makes the task better. That is one. Two...we don't have these skills, nor are we practiced nor does the situation ordinarily present itself ...your comment about you can't give feedback to other people, they think you are some sort of kook--that is true, except that about 80%, I would guess, of people will accept feedback but we make assumptions that they won't. Part of it is the way the feedback is delivered--that is skill. I think the real crux of it is putting it on yourself for openers. If raised in terms of yourself, it is pretty difficult for others to get defensive about it. If you try it with someone for a while and they keep turning you off maybe it is legitimate for you to not have to go on through with that person. It is okay to not want to relate to somebody. Finally, I think that this has to be structured in. You have to structure process just like you have to structure tasks. When we structure so many things that we do, why can't we structure people's learning about human relations? We never seem to want to--we often tend to fight that whole structure about human relations. Let me propose this for projects like the one that you are in. If you really believe that human relations are important, you set up the expectations in people that human relations will be dealt with and in the beginning you are going to organize structured ...and you do set aside scheduled times from the very beginning that you are going to be dealing with human relations. That can be done in a variety of ways. Suppose, for example, that everybody agreed that feedback was important to each other. One format is that at a scheduled period of time everybody writes some kind of an evaluation --get some criteria related to human relations, hand it out to everybody. I would write one for each of you and you would each write one for me and everybody else. Then it would be my responsibility, for those that I question, to go up to the person and say, "I don't understand what you mean by this." The writing is another mode to get across some information that eventually leads to discussion. The whole point is developing a skill about the things we are sitting here talking about. You can sit around and talk forever, but if you don't do it, it has no effect. It has to be structured in order to put the pieces together just as we did in Boulder Experiments.

Susie--We really did try to do this at the beginning of the project. There was nobody on the staff who was skilled in group processing. I think that it didn't work because Karen, Reggie, and I didn't know what we were doing and also the students were not interested. The things that Allan was saying about stumbling around--he really appreciated it more.

Rocchio--One can structure and still leave freedom, but we don't have to waste quite as much time floundering around making all of the discoveries by accident. You can design the process and let the content take care of itself. It works in the way like a kind of a sliding scale in that you can structure and still leave enough freedom and you would get there much quicker and much more efficiently.

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Irving--Then the major thing is feedback--you have to choose between positive and negative, but feedback is the word. I think about two big barriers to structuring the process--finding people who are really good at doing it and also finding the time to work on the process when everybody has so much work to do.

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Susie--One of the problems is different people with different goals. I was totally committed to the idea of process and had very little skill and I think that Karen and Reggie were interested in it too, but we got shot down. We would not have had you come in at the first of the year if we didn't think that was terribly important.

Susanne--I don't think we tried very hard as a total group. A few individuals did try but I guess we did not have enough unity or something in the group.

Karen--I am sort of lost because everybody is going on the assumption that we were not able to process ourselves. I have been thinking all along that we spent a lot of time and we did a fair job for a bunch of amateurs.

Rocchio--I used an instrument of seven questions and it worked to some extent. It can always work to some extent, but you have to decide to structure it in and keep trying...just leave the freedom at the open end, not at the beginning. There is also the problem of references. Who do we give for references? We always give people as references that have some measure of authority. [In processing, however,] you want to find out about the other side of you.

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Irving--Actually I feel good on the whole about what has happened and

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what is going to come out of this project. I was kind of concerned about getting more social science into the project. I am wondering what the students response would be to the question of the validity of SADMESS being a substitute for part of their schooling.

Allan--Do you think that if the project had been successful in the process but not in the product, would you be disappointed?...

Irving--I think that a good product is essential. I was thinking in terms of three goals for the project. One is learning, planning, and thinking about our own thing--what am I getting out of this that will make me wiser or whatever? The second thing is the group processing together, and the third thing is how good is the product? This could be a good analysis of a bum project.

Steve--I just wanted to ask you Rocchio if you can tell a marked increase in our communications skills from a year ago?

Rocchio--There is a marked improvement, I don't think there is any question about that.

Steve--I saw today more or less as the adults building the framework around the discussion, but I think the students really filled it out. I think they made a solid piece of material around it. My own personal feeling is that when we do group process I would much rather listen to what you have to say than to express myself because I am more interested in the theories you bring about because I am learning when you are talking. I learn every time that Susie relates to what you are saying. I kind of relish sessions like this; I really enjoy them.

Susie--I thought your Rocchio direction was really good.

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Susie--I guess I felt this morning was very useful because I got about five or six pointers to put into a kind of "moral" for this kind of a project. Maybe other people have a different idea of what the purpose of this is. I guess I thought mainly of getting reactions of people for the year which would then help us in the final report to decide what we did and how we would do it.

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Dan--(reading application) I gave myself a 3.5 for technical/reportorical writing ability; 4 for creative writing ability;... 0 for access to community resources (people, organizations); and 4 for willingness and ability to carry through on long-term projects.

Susie--How come a zero for access to community resources?

Dan--I don't have any resources. The school subjects I like best are math, physics, English composition, drafting--sociology and, the least, I put "none." I rated myself as a good student. I am not going to read clear through my whole essay. I would not say it was all B.S....

Susie--I thought you said you felt differently than other people.

Dan--Yeah, I do.

Karen--You are saying that you feel differently than other people. Do you feel good about that or does it make you feel strange?

Dan--I feel good about it.

Reggie--I can't remember any times for sure, though.

Dan--I can't either.

Craig--Oh, I can. Dan and I would talk a lot and we would usually end up agreeing but he would go in a round-about way that I would not take

--he looked at it from a completely different view than I did. His logic was different.

Susie--I remember the very first day that we met, you said something and I jumped on you.

Craig--I remember that.

Susie--I really felt bad about it afterwards. Then it seems that you didn't say anything from then on. I really blew it.

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Karen--You get to know an awful lot about a person by working with them.

Dan--I just think we could have a little more get togethers like this at the beginning of the year so that, as we were working, we would get to know each other then.

Karen--I think we had a lot of rap sessions.

Dan--We did at the very beginning but they were things like "What is education?" and "What is important?"

Karen--You are saying a different kind...

Dan--Yeah, I mean personal.

Karen--My viewpoint is partly that this project is such a big part of my life, I didn't consider talking about things--other parts of my life so much. There were not that many other parts. This was a big part of my life this year. To me it would seem sort of silly to go in a room and say, "Okay we are going to talk about anything but the project" because what I wanted to talk about was related to the project--either the project itself or topics related to it. I am really interested in that and that is what I wanted to talk about. I am trying to think back to a time when I didn't have that sort of major interest. I did try to talk about another portion of my life once and Allan told me to shut my trap because it wasn't related to the project. I was really crushed.

Susie--Dan, this business about that you think differently than other people. Do you share the other students' views on high school?

Dan--Yeah, I agreed with them for the most part.

Susie--Is that part of what you mean by not agreeing with the "jocks" at school? Or is it that, for environmental education, you don't agree that the major problem is water pollution, but rather what people's values are?

Dan--I agree that it is the values.

Susie--So does that mean that the Schoolbook did what you wanted to do this year?

Dan--It is not relatively useful, but it is important.

Susie--To you?

Dan--Yeah. The things we found out.

Susie--I think I heard you say that you didn't care if people accepted your being different or not--you kind of liked it.

Dan--Yeah.

Susie--I thought the project might have a provided an opportunity for you to be really different.

Dan--I don't try to be different, I just don't get upset about it.

Nick--It's kind of nice to be unique.

Susie--It sounds like Dan does not feel alienated whereas when Steve was talking this morning..he got out of feeling alienated by looking at him more objectively.

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Allan--I think Dan's responsible because I think...

Dan--On the application where it says, "sensitivity to human needs," I was tempted to put a negative number because a lot of times I couldn't care less about "human needs;" but that's not valid either.

Sheryl--Well, I don't see..what do you mean, "its not valid?"

Dan--Well, that is the way I feel most of the time, and I think that is kind of hypocrytical.

Susanne--Why is it so hypocritical? I feel that way all the time. Well, not all the time, but a lot. I don't care about those people any more as long as I can have my way.

Dan--Well, I don't think that's valid.

Susanne--I don't see why it's not valid. Why can't I feel that way?

Dan--You can; I said I might not feel that way. I didn't say it isn't valid for other people.

Karen--Back there, I started out with a question. I got lost in myself. The question was, "What kinds of things--non-project things--would you have wanted to talk about to get acquainted or..."

Dan--In your case?

Karen--No, not in my case. You said it would have been better if we'd had more opportunities to get to know each other and I wondered what else it was that you wanted to know about each other early in the game.

Allan--What struck me as a really good way to get to know people was to do things like, well, Steve and I got to know each other by going to lunch every day.

Susie--By going out and working in our garden?

Allan--Well, that's not exactly what I had in mind.

Karen--That's too much work.

Susie--Being together...

Allan--Yeah, spending nights out together--not on a work retreat--just to go fishing, go on a picnic, just to goof off.

Susie--That's a good thing we probably should have built that in.

Karen--Should this have been built in to a work day or...

Susie--Sure, if they were coming to work anyhow and not doing anything, might as well go out and have a party.

Reggie--Well, we did have several parties.

Steve--How many times did people say we ought to take a retreat and have some fun. It's been said many times.

Susanne--Or just going on a hike.

Dan--Well, everybody's agreed then.

Susanne--I don't know if everybody in this group would have gone, but maybe that is not important. Maybe if you could just get to know one or two people at a time, then maybe the rest would come. You have to get established and I think Jon Rasmussen all year really felt "un-established." I felt that way a lot of the time in my classes in school, too. I felt that way in the sixth grade. It was a switch for me between two different schools and when I came here in the sixth grade everybody was worrying about all kinds of things and I was still back in childhood--worrying about nothing. They were all worried about their clothes and you know, lipstick...

Karen--I was very curious as to if there is anything you can do to help people get acquainted faster at the beginning of such a project as SADMESS.

Reggie--It seems to me that what you're saying is that we should provide the opportunity for spending non-pressured times together.

Karen--Maybe I am staid, back in the Puritan ethic, but it seems to me that when you start a job you are making friends with people and it is sort of a casual thing, like Steve and Allan going out to lunch with each other. When you try to structure that it would get just terribly manipulative and there would have been massive rebellion.

Several People--No, no, no.

Steve--No. Like at the beginning of this year, they tried this new tactic--people were going to get to know each other in the class and there was going to be better class participation, so they said, "Okay, turn around and tell the person behind you something important about yourself." So we turned around, smiled, giggled, and starting talking about the "drunks" they went on. It just doesn't work. I mean, as the year progresses and we see that we're accomplishing things and we are working as a team, just to say let's go get together and take a weekend off and go up in some cabin...

Allan--I think the basic element that is necessary is the willingness of the people involved. Like, in Steve's classroom situation, these people have their own friends, they have their own whatever--they're doing, and they could care less what this long-haired guy behind them does. It seems to me if you know at the beginning of the project that you are going to be working with the people for a year, it would be nice to know them.

Nick--I think you are playing with words and taking them literally and going on with the literal meaning of them. What you're saying is, "I wish we could have instant rapport." Instant rapport is impossible; now, don't be defensive about the fact that we didn't provide it. And don't try to look for the mechanisms for it in this group who've never had a chance to experiment with techniques for instant rapport. Take it that it developed slowly and we wish it could have been more rapid.

Karen--I was not feeling defensive until you brought it up, and I am very defensive about your interpreting it as being defensive. What I was searching for was not an excuse for why we did or didn't, but what can we put in the report that would just suggest some way of doing it, and I think what everybody is saying is that it can't be built in.

Susie--Well, I think it can. We did some of that Friday night at Reggie's place and more of it--going off and drinking beer at 3:00 in the afternoon or something.

Karen--That switches me around again because what I thought I'd been hearing before was that there was no opportunity to get to know each other.

Sheryl--We didn't do it enough. I can't see you guys instigating us to be together that much. You did it some, but I think it should have been us that did it.

Dan--I wonder what would have happened if, at the first retreat, if we had drawn up a schedule of events of what we were going to talk about or something, what would have happened if we (I'm not saying this would have been good) one afternoon we would have said we were going of and get to know each other and have a good time.

Susie--I think it would have been better from my point of view, because I think I am a pretty nice person and I don't think you guys thought so. I think if we'd gone up and just sort of "let it flow" or whatever that is, that would have come out much easier.

Nick--Three things that I've been doing the past year: one is a whole evening of non-verbal activities in close association, touching things. Everybody pretend that there is a ceiling in the room 2½ feet from the floor all the way across the room. And, everybody go all the way to the other side and back taking poses together and holding them. And then somebody else joining the group. One person had his eyes closed and the other person sculps his face, and then you turn around and do it the other way. Exploring the other person's hands with your eyes closed and then mixing up and coming back and trying to find the hands with your eyes open. No one made a big joke of it when they did that with a group that was going to be together for 3½ days. At the time I was pretty impatient--I was much better with verbal introduction, but I think it did help to break the ice. Most people, not everybody, some were really up tight about it. Second, is the introduction where you start off interviewing the other person. Maybe you did that. Instead of introducing yourself, you interview the other person for 15 minutes. The third is a little activity in which you identify what piece of clothing you have on, what dress, the nicest thing you remember about your childhood, and if you were an animal what animal would you like to be.

Steve--I'd like to be the Pillsbury Dough Boy...I mentioned a sensitivity training and everybody started laughing at me.

Dan--I never thought it was seriously proposed.

Reggie--No, I didn't think it was seriously proposed, but even without that I think of the idea as a joke.

Susie--Well, it is clear that we need to ask for another $50,000 so we can do this project over again.

....

Craig--(reading application) Technical/reportorical writing ability-3; creative writing ability-3; graphics-0; drawing/painting-3; photography-3½; creativity in generating ideas--"idea man"-4; creativity (in finding ways to solve problems, achieve desired ends)-4; organizational abilities-3; preference for action programs (participation in social or political action groups)-4; preference for head trips (intellectual or spiritual action)-4; sensitivity to human needs-4; dependability-4; analytical skills-3; conceptual skills-4; access to community resources (people, organizations)-3; willingness and ability to carry through on long-term projects-4.

Susie--Hire that man!

Craig--I said I like classes that involve world affairs and problems. I said I like physics and chemistry. I said, "good student." Okay, now I will read the first paragraph.

Susie--Oh, read it all.

Craig--Okay. "I believe that one of the major purposes of education should be to prepare students to live effectively in a complex and changing world. In order to accomplish this goal, the learning atmosphere must be one which includes not only classroom study, but also programs which actively involve the student in the problems and needs of his environment. I feel the Environmental Education Curriculum Development Project represents a step in this direction, and therefore I am greatly interested in being an active participant in it.

"One main concern of mine is that such a project should consider not only methods of improving the physical environment, but also methods of developing the potentials of the individual students. Only by improving the qualities of our hearts and minds can we learn to live harmoniously within, and make full use of, our environment. In order to have a healthy environment we must have healthy individuals. One program in particular which offers a practical method for developing one's full mental potential, thereby improving the qualities of our hearts and minds can we learn to live harmoniously within, and make full use of, our environment. In order to have a healthy environment we must have healthy individuals. One program in particular which offers a practical method for developing one's full mental potential, thereby improving one's relationships with his environment, is the Science of Creative Intelligence (SCI). This new science has been developed in the past year and a half under the guidance of the Students' International Meditation Society. Courses in SCI are now being offered in colleges and universities across the United States, including Stanford, Yale, UCLA, and CU. I am personally involved in this program and would have access to any information which might contribute to the efforts of our environmental project. "As an individual, I would be willing to contribute all of my creative intelligence, energy, and enthusiasm in order to discover unique approaches to the problems of our environment and to find practical applications for them. In addition, I have had some experience in photography which may be of some help in developing a pictorial account of our investigations. "I hope that you will grant me this invaluable opportunity to help find concrete methods of teaching the problems of man and his environment to students."

Susie--There was just no question that Craig was the Number One applicant on the basis of what he wrote. I think that was true, wasn't it? He might not have been the Number One, but it was clear that he was going to be one of them.

Karen--Well, it was clear that because of his writing he would have to be on the team. Also the meditation thing we thought would be valuable background.

Craig--I remember when I went to the interview because I was up tight, because well, as everybody knows, I have a very hard time talking. I didn't like to talk--I didn't know how to express myself. I was afraid I wasn't going to get it and I was so disappointed...I really did see it as being everything I wanted to do.

Reggie--How does this year compare with what you felt at the time?

Craig--I think its been a "real groovy" year.

Susie--I wasn't involved with your interview was I?

Craig--Just Karen and Reggie.

Susie--What did you guys think of him at the interview?

Craig--Well, See I wasn't saying anything. They kept asking me things because I wasn't saying anything.

Susie--And you got paranoid because they were asking questions?

Craig--No, I just didn't want to say anything--I got very nervous.

Sheryl--No, you said some things, Craig.

Craig--Yeah, I did say some things but I still...

Sheryl--You would cut it off...

Reggie--I think I saw you as not really someone who was shy, but someone who had difficulty talking in front of these people who continued to reach out to you...but the way we were choosing people, that would have not been a reason to not accept you. Not at all.

Susie--Could we have put you at ease any more?

Craig--I was hoping for a personal interview.

Susanne--Why didn't you dig the group thing?

Susie--Just too many...

Karen--Too many! It was like we learned something about...

Craig--Well, the way she talked I figured she...

Reggie--Our standards were really quite different from what you thought.

Susie--I remember, Janey, you were in there when I was interviewing. There was this other girl who was so pushy! I couldn't stand her. She probably was a perfectly all right person, but you kept modifying what she said and making sense out of it and being pleasant. It was precisely the kind of thing that we were looking for. You didn't talk that much, but do you remember that?

Janey--I felt like I was talking too much some of the time in there. The way she was talking so much and the other guy didn't get a word in edgewise--he kept wanting to talk and didn't get a chance to.

Reggie--Another thing that came out of the group interviews: I remember one applicant we didn't take mainly because what he did was take what people said and put it down and then come out with his own, instead of just coming out with his own. And those were the kinds of things we thought were really important in choosing a group of people that would be working together.

Karen--We did have some people come back for individual interviews.

Reggie--Susanne was one of them.

Karen--We didn't feel we quite got the feel for you during the group interview that was necessary.

Reggie--I think I remember that one. She was very talkative.

Susie--Was she the one that was organizing the move for something? I got the distinct impression that she organized everybody and didn't do much of the work herself.

Steve--She did a lot of "mouthing" and didn't do any work at all.

Reggie--She also seemed like she jumped in and out of things.

Susie--She might very well have been a good person. I think we did shy away from the really strong personality.

Reggie--Yes, I remember feeling cautious about Susanne as we talked about her several times.

Susie--Craig, this business about talking--like when you went to the Phipps House for the Roundup and you really got turned on. You were there the whole time, practically. You seemed to have all the social grace and stuff. I noticed that about Steve, too. You seemed like you were perfectly at home.

Craig--At the Phipps House I wasn't really at home--I was "cocky" and things like that, but I really did have a good time. When I was giving that talk in front of the people I felt very confident and I felt I was going to do a good job. It really amazes me how much I have developed in that way. That is where I can see the biggest change in me--with the talking abilities.

Reggie--You really do volunteer to do the pick-up on what others don't want to do. Not that you are eager to do it, but you say, "Well, I'll do it." and you are certainly willing.

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Craig--Can I go back for a second? Why didn't I have any references?

Sheryl--Yeah, I didn't either.

Reggie--Well, we didn't call on everybody. Maybe we were so sure about you that we didn't feel it necessary to check the references.

Susanne--I remember when Sheryl and I were discussing whether or not she would get it because, first of all, would they pick her because her mom was one of the directors, or would they not pick her for that reason?

Karen--I think what we did was sort of try to monitor ourselves and make really sure that we were really being honest in Sheryl's case.

Susie--I wondered what people thought of this.

Allan--I sort of smelled a rat, but I really didn't care because Sheryl was...

Steve--I always got the feeling that she would feel really funny about it. It didn't make any difference to me either way. I always wondered whether she was really self-conscious about it.

Janey--If she'd have been like ______________ that would have been...

Allan--Or if someone who would have been a really good choice had been passed up in her favor--if somebody like Craig would have been passed up and ______________ and Sheryl chosen, then...

Reggie--How did you feel?

Sheryl--I think I felt really funny at first. I did feel funny I think until I found out I was an important member of the group and that I had some organizational skills and things like that.

Susie--Did it make you work harder?

Sheryl--No.

Janey--If my mother would have been on the project, I would not have applied at all. Like, when I was in fifth grade she was my Sunday School teacher and that was bad enough.

Steve--Did you feel funny when we were trying to figure out your relationship to your mother? You are Sheryl Wiggins and your mother is Suzanne Helburn and then there is Peter and then there is Nick. Did that make you feel self-conscious at all? I had a terrible time figuring it out.

Janey--At the interview you [Susie] asked me if I knew your daughter Sheryl Wiggins and then you were Suzanne Helburn, and I was just...

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Reggie--Do you want me to read Jon's?*

Dan--We can't discuss it as well.

Susie--I'd like to find out what people thought about him. Jon was a real problem as far as we were concerned and we were at a loss as what to do. Maybe some of these things that Rick said today would have been helpful if we had been better at it.

Allan--I liked him...I think he really did prove to be the one really poor choice because basically I don't really know how interested he was. Sometimes he showed sparks of interest but never a constant drive.

Reggie--I was going to mention something about why we chose him. We saw the project not only as a project of environmental education, but also a project to really involve different kinds of students, and we didn't want eight super-stars. It was quite obvious that he had been turned off by the system.

Susie--That is a nice way of saying it.

* Jon Rasmussen was unable to attend the retreat.

Reggie--Well, I really feel that, though.
Karen--That was one of our reasons. We...
Susie--I think another way of saying the same thing is that we were captivated by him personally. I was.
Reggie--I wasn't.
Allan--This is strictly an academic question--I don't want to pry into anything--but did just you three do the choosing?
Reggie--I think so.
Susie--Tom Roberts and Phil Cohen were in on the interviewing.
Reggie--But, of course, the day we did the tallying we had everyone's names and all of these different categories. I think it was just the three of us who actually did make the choice.
Karen--I think that it boiled down to either ____ or Jon. ______ was a "dynamo," outstanding in school and everything else. The thing that made the difference was just the idea that Reggie was talking about--if we had taken ______, I felt like the real challenge was gone because, of course, it would work out. I think that he did have some creativity.
Susie--I am talking about the fact that we were personally touched by him more than anybody else. And I think Steve, too, to some extent.
Reggie--I felt more that way about Allan.
Susie--I felt that way about Jon. We all had our pets from the very beginning.
Susanne--What if you would have had six students?
Susie--Well, that is the reason we decided to have eight, because we couldn't narrow it down.
Reggie--And also we had extra money in the budget because the school district wouldn't let us pay you for the hour that you got credit for.
Sheryl--Now I know why they didn't choose _____.
Susanne--Why?
Sheryl--They didn't want an attractive, aggressive female.
Susie--No, no. It was going to be more trouble with the group if she were in it, because we'd be having this problem all the time with her bossing people around too much.
Reggie--Yeah, but I wondered...I'd like to get back to the feeling I heard...that there were different kinds of resentment about Jon.
Craig--I didn't understand and I am still not sure of the magnitude of his problems. I could relate to the way he was somewhat because I was kind of like that a couple of years ago. I would see Jon sometimes at night and he was always really out of it. I could see that, but I still resented the fact that it seemed like he did nothing and he was still getting paid.
Reggie--What do you think we could have done as a group--not just Karen, Susie, and I--but everybody, to either help Jon or...
Craig--We tried.
Sheryl--Like, I never told Jon what I thought, you know...
Karen--Did anybody ever say to Jon, "We think it's lousy that you're getting paid for not doing anything"? I know that a couple of times people came to me and asked me to tell him.
Susie--I think Allan did.
Steve--Allan and I did once. Not the money rap, but we just told him that we didn't like him coming in all out of it and sitting around the office.

Reggie--I do remember several conversations, I guess, about his coming to work that way. I talked to him the last day that he came in to do a tape about transportation and he said that he really felt bad about ...he just sort of disappeared and stopped, but that his head was going in so many different directions, he just couldn't handle coming in and people saying "You've got to do this" and "You've got to do that." I said that I could really understand that he felt that way, but it would have been more helpful to us if we had known that. I think in a way that kind of summed up the whole year for him. I can see a lot of days he was not able to handle.

Nick--Would it have been better to set some kind of ultimatum earlier in the year that, if you can't really get it together, get out?

Reggie--Well, I think there are a few steps before that.

Karen--We took the step right before that which was, "We're thinking about giving you an ultimatum..."

Reggie--And even before that didn't you have some talks with him?

Karen--Yes, I had several short talks with him, but I never...he always ...well, he came out of it with, "Oh, I'll try."

Reggie--It seemed to me to be out of his control in some ways. I think this was one reason I didn't know how to handle it. I really didn't feel that Jon was capable of coming together. I know that I had days like that.

Allan--Okay, I don't disagree with that, ultimately he just couldn't make the grade. The only reason I ever got mad--I didn't mind his getting paid for sitting around--was that when he did take on a job, he did such a rotten job. He'd write a letter--take a pencil and scrawl out this horrible thing with a bunch of misspelled words, horrible grammar.

Susie--He might not have been able to write.

Allan--I agree.

Janey--Well, he'd do letters in pencil and mail them and wouldn't even go to the trouble to give them to Connie to type.

Susie--Do you think he was too embarrassed?

Allan--No, I don't think so.

Janey--I remember suggesting to him once, "Why don't you let Connie type that?" and he said "Well, I just want to get it out, it will take too long..."

Steve--I remember at the beginning of the year--I tried two things with Jon during the whole conflict. First, I think we really talked about it and I think the B.E. group really tried to give him a chance, really tried to understand him more and tried not to push him so much. I also recall one day when we went up to NCAR and...we started talking about the project and he more or less said that, "Intellectually I can't keep up with what is going on." He said that he really tried but he really got frustrated and there were too many things that he couldn't keep up with.

Sheryl--I think that is all right. There is nothing wrong with that, but should the project be financing his inability to keep up? I don't understand, because we could have hired somebody else that could have kept up.

Allan--A lot of times he really wanted to do a good job, and I think he enjoyed the work and being with us a lot of the times.

Susanne--That always killed me, on pay day, the way he waited around until he got his check and then he would split.

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Craig--The only way I can relate to Jon is through photography and all and when I did that and started talking to him about different kinds of things, it was really kind of neat. It seemed like he really enjoyed talking about the slides and stuff. Those were the times that it seemed like he was capable of something.

Reggie--I think that some of the feelings that Karen and I share is that keeping him on and trying to give some sort of a positive response to even the little bit that he was doing and trying to encourage him, even though that might not be adding to our product for the year, it might mean a lot to him personally. Do you think that he got anything out of the year personally?

Karen--I talked to his father after Boulder Experiments and he said that it had been a tremendous experience for Jon. His self-image had been boosted a lot because he found he could do a lot of things he hadn't thought he was capable of before.

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Steve--I was just going to say that I can remember, like, back at the beginning of Boulder Experiments when we were going around making the presentations and somebody would ask questions--if they asked Jon a question he would restate what we had said. Towards the middle of the project or towards the end he was really beginning to say some things that we hadn't already said. That was an accomplishment as far as I was concerned.

Reggie--So that was a sign then that he had more confidence.

Allan--I think he probably really learned a lot about his own capabilities.

Steve--I think he learned a lot from us.

Janey--I think it must have something to do with deciding to choose to work for a year.

Reggie--I think he couldn't help it.

Nick--I don't think we can answer that.

Reggie--Yes, we'd have to ask Jon.

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Nick--I would like to say that I am very appreciative of the chance to come because I feel like I know you guys a little better for the first time all year. I've had a more or less second-hand knowledge of you through Susie, but I haven't had a chance to be that close myself and I am sure that is partly my own fault for not going beyond the Advisory Board meetings but...I was pretty uncertain when Karen asked me to fill in for Dick as to what was wanted, and out of two or three short conversations I gather that this comes partly out of the questions that were raised at the Roundup. The kind that turned you on and got you going discussing some aspects of the whole thing that you hadn't thought of before. I'll start with a couple of questions about the community and I think most of these questions assume that we're pretty happy with the way things went on the whole... and we're interested in sharing it. Another question is, how would the project have been different if it were in Longmont or in the middle of Denver? How much does the particular character of Boulder make a difference in the way it worked out? What would happen if the November election in Boulder had turned out the other way and CURB (Citizens United to Restore Boulder) had won?

Susanne--You mean as far as the Boulder Experiments?

Nick--I guess this is related to the Boulder Experiments rather than the Schoolbook because that wouldn't have anything to do with it.

Janey--I think the Boulder Experiments would have leaned more toward the liberal variety rather than the conservative variety...

Allan--After attending the Capitol Hill Fair group meeting in Denver and talking with Steve Hodes, I tend to think that if they were going to try to do a Capitol Hill experiment or an East Side experiment, it would be even more socially oriented than our BE. It wouldn't be so intellectual, but more or less concerned with social interaction. Like, in a Capitol Hill neighborhood there are all sorts of people--old people, young people, freaks, poor folks, conservatives, Democrats, etc. A place like Longmont might be more environmentally oriented.

Sheryl--I don't know what to say. Of course, I am from Longmont, in a way.

Steve--Can you do like one question at a time? I heard all five or six of them but...

Nick--I was really thinking of those as specifics of the question as to the real character of the community...

Steve--I can remember one specific example. When we were at Roundup there was a black lady there who was talking about a problem, that white kids really have a problem relating to black kids in the school and after school. I can see that a larger city would probably have more problems relating to each other than Boulder. I think that a group that was, say, half black and half white would have more problems than we had this year, too.

Nick--This would have been another whole area--it just would have been that much more complex?

Steve--Yeah.

Allan--We would have had to maintain a balance.

Steve--The time that we spent with the process was short. I think that if you took a city like Los Angeles or Washington, D.C., I think your process would have to be much longer just to get people to relate to each other. Particularly, if it was half white, half black, or half Chicano and half black. I think there is a broad communication problem, anyway. If you're going to work together towards a goal there would have to be more process. I think the project probably would have turned out more political than, uh...

Allan--Boulder is still small enough that you can deal with some environmental problems without social interaction getting in the way. Boulder's society is a rather cosmopolitan community and so with Boulder Experiments we tried to assume a rather cosmopolitan--stance. Whereas we tried to encompass all factions. Now you have a city like Longmont, which is pretty much one type of people--uncosmopolitan--I think the fair would have a pretty uncosmopolitan atmosphere and would be sort of...

Reggie--Another aspect of the question is, not only what would it have done to the fair, but what about your learning experience--how would it have differed?

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Nick--Should we move on to another topic? The first one that I have and one that you might have already dealt with is the question of "Is this the kind of a project for restrictive, leadership kinds of kids?" I suppose the reason it came to mind was that you were reading the applications and this is pretty much the cream of the crop, as far as maturity, ability, command of yourself, etc. What would happen if you had more Jons, let us say?

Janey--Karen would have had a nervous breakdown.

Nick--If you had had some people who were really dull, what would happen if you tried to do 20 such projects in Boulder, simultaneously so that each of you was trying to get the pick out of Fairview and Boulder High?

Steve--I don't feel as if I were the cream of the crop by any means. I really don't. I think it helped to develop some of the skills that I didn't know I had and I think it was socially and academically very good for me. I can't even think of what I'd been doing this year if I hadn't been doing this project. I probably would still be slumming somewhere. I wouldn't consider myself the cream of the crop at all. I thought I was very lucky to get into the project. I couldn't understand why they picked me.

Allan--I think if they had 20 projects like that in Boulder there would have to be a little more motive to develop leadership skills. And it is not like we are all going to go out and be leaders, but one thing I learned in this group is that leadership often is a very spontaneous thing and leadership of a group from day to day, hour to hour....I think that is a very valuable thing to be able to do what you want to do, so for that reason I would be afraid to sit down and...

Janey--I know a lot of people that would be good for something like that.

Allan--I think maybe a cross section would be good. We had eight people and if we'd all had Jon's motivation...

Steve--What section do you feel you are of the cross section?

Allan--I think that to give people a chance to develop it would have to be a role-type situation instead of class. We came in as eight students and we didn't care or say, "Well, I hang out with the football crowd or the barrel* crowd." Nobody really cared who you hung out with.

Craig--All of us are alienated from school.

Allan--Probably 75% of the whole student body is alienated from school.

Craig--Yeah, I know, but in a different way.

Dan--Yeah, in a much different way.

Reggie--Do you think something like this would work with students who have been alienated but doing poorly? You've all been alienated, but you are all still doing very well in school. I meant that they are academically alienated as well as socially alienated.

Dan--I don't think they would come out as well.

Reggie--Do you think they would get anything out of it?

Sheryl--It sounds like you are talking about Jon.

Dan--Yeah...

Reggie--I don't mean to be talking specifically about Jon.

Dan--Do you mean a person like Jon?

Reggie--More like Jon in comparison to you, but not...

Karen--What about a total dropout?

Dan--I just don't think he would get anything done.

Janey--I am thinking about my sister who has a reasonable amount of intelligence, but she just doesn't want to use it. She would just

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*A reference to smoking by the garbage barrels in junior high school — a typical scene that came to symbolize the "out group" in teenage social structure for our

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rather bum around. If she could get excited about something she could do really good things, but she has no interest.

Dan--One of the big things that we have said is that all through school we have been kicked around so much--"do this, do this, and then do that"--when somebody all of a sudden says, "Do what you want," we are kind of stumped. I would think that somebody who has dropped out of school would be a dropout because he couldn't handle it any more, and it obviously has gotten to him even more than it has to us. We are not totally ruined, so when somebody gives us a chance to do what we want, we have a chance. Somebody who has dropped would be totally lost.

Steve--But at the same time I can see this happening. I had an experience which enabled me to become aware of my problems in school. I was able to define that they were not academic but social. I never could do that before. If you had a dropout he would have no way to compare. Maybe he would sound like a broken record saying, "School is for fascist pigs. All they do is tell you what to do and that is all there is to it. There is no good about school. Academically they teach you things that you don't like and I don't understand the teachers and they try to push me around, and this and that." A dropout would not have a chance to look at it really critically (fairly) so I think you would have a totally different product.

Dan--Do you think you would have any product?

Allan--I think we are making some really gross generalizations about dropouts.

Janey--Yeah.

Craig--A dropout could be one of the most valuable members of the group. It is just that it is really hard to deal with that because you don't really have any idea--when you think "dropout" you think "freak," "hippie," and all of that kind of stuff. That is what we are talking about. There are some "jocks" that I really like.

Allan--So maybe we are going at this on a large scale and should just consider smaller groups and not worry about that and not worry about whether they are "jocks" or "freaks."

Karen--I think that maybe really avoids the actual question. I am not sure what the real question is, but I think it is something like this: Can you take a program like this and institute it on a mass basis, leaving aside for the moment the questions of not having enough money or teachers to handle that kind of thing. If we did, would it be a good program for everybody? What kinds of people is it a good program for and for what kinds of people is it a not-so-good program?

Dan--I think the people that volunteer probably would benefit most.

Karen--That is one important criteria, maybe.

Dan--I talked to some people I would tentatively say are "jocks" and told them a little bit about the project. Their response was that school is not that bad, you can live with it, etc. They felt it was silly to waste my time on the project. They simply have no motivation and see no need for change. I would think that the people who volunteered would at least see something wrong or a need for change or they wouldn't be volunteering to do a project like this.

Steve--But suppose you took a number of "jocks" and decided that you would do a project similar in process to ours, only you were talking

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about better techniques and coaching. I think you could use the same process only maybe have a variety of interests.

Karen--Have an internship with the pro football players.

Dan--Yeah, I agree.

Allan--This program mainly deals with or mainly appeals to juniors and seniors. Maybe you could let the sophomores have a little outside of school work and let them have that on their mind when they are going to school.

Susanne--I think part of the reason that we didn't get many sophomores is that they are still worried about getting their education and getting ready for college--I was at that time.

Steve--I think that is a pretty gross generalization, too.

Sheryl--High school seniors are much more free about this. I was not doing very much academically last year, as I was as a sophomore or even a junior.

Steve--Okay, what I am saying is that I was not worried about those things when I was a sophomore. I was worried about the length of my hair, where I was going to get my next smoke, and that sort of thing.

Dan--That is what I was going to say. Because a sophomore didn't apply might not mean that he is interested in school; it might mean he isn't interested in anything.

Steve--His identity is so mixed up that he...

Janey--So we are all talking about ourselves as though...

Nick--So the motivation that comes out of this is a pretty powerful element any way that you have it. It seems that you anticipated another question of mine when you suggested that maybe you could get a group of students who were interested in sports into some alternative out-of-school activity that would relate to sports rather than the environment, and maybe you could do the same thing with natural sciences...

Sheryl--You mean like a student-designed program?

Nick--Student-designed program, say, on segregation.

Sheryl--But not taking it as developing a curriculum, which supposedly is what this was, but as designing your own...

Nick--Well actually it'd be a curriculum on segregation.

Dan--It depends on the subject. Steve mentioned an example I sort of went along with--he said you could develop an alternative course in culture involving football players and I said I agreed, but I don't know if I do now. The people that are satisfied are not going to have the initiative to develop something different. They don't see anything better because they are satisfied with the way things are.

Steve--I don't think that you were satisfied with the way things were when you entered this project but I think you were pretty apathetic to a lot of things that went on in school...

Dan--Sure.

Steve--There is a distinct difference between being apathetic and being satisfied.

....

Allan--This is sort of what I was talking about by doing a lower-keyed program. This program is pretty much...four to six learning activities...I mean, that is heavy stuff. It is sort of like when you teach a six-year-old how to do something, you don't teach him abstract ideas of social sciences. You teach him water runs downhill where you can see it and feel it. It is something you become inter-

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ested in through your senses--you can see, feel, touch, hear, or whatever. I think that principle could be applied to the high school. If you got in trouble with your school and really sick of having to wait at a traffic light for an hour, this is something you can see, touch, feel, or whatever. Maybe you can do something about that.

Steve--I don't think it is a matter of when you present a program that you have to gear it lower. I think ours was high geared too, but I think we changed gears. I think we lowered it down to some...

Allan--Yeah, but what I am saying is to equate it to the person's immediate environment that they can grasp. That is what we did in Boulder Experiments.

Steve--Sure. And then let the people hear it themselves.

Dan--That is the way it looked in the beginning when we started with Madison Avenue. That was kind of a ...much lower consciousness than the Schoolbook we've got now. That was an idea of environmental education, I guess--relatively solid things like that--and that was just kind of a lower gear because that is where we were. Then, once we started getting in and gearing up a little, I think we came out with something a little better than that. But, I don't think...

Allan--You are using a bad word, gearing, maybe...

Reggie--I think...

Steve--Yeah, what did the applications say?--"Four to six learning activities." That is a lot of responsibility. We managed to say that if we only do three learning activities, that wouldn't be so bad.

Susie--But, Allan, you are saying that you could do something like this if the thing were of interest and could be grasped by whatever students happened to be involved. So, if you are going to do it in high school, you start with the traffic problem of getting to school or whatever else is involved. Those people actually can get excited about it.

Nick--How about four to six activities in sex education?

Allan--I'm sure that would go over.

Karen--Do it yourself.

....

Karen--I don't want to staff it.

Craig--I want to say this one thing about what Steve was saying a couple of minutes ago. Sometimes I really wonder, what is the point--why am I doing all this? Why shouldn't I go up in the mountains and live the rest of my life? What is the point of getting involved? I think a lot of the time about people who used to be my best friends and I really did have fun with them so I wonder if what I am doing now is worthwhile. I regress and I think that I really should be back there smoking every night or something like that and it seems like there is just so much of that in people that...when you think about it there is not a lot of point. Most people don't think this, but at least the people I have been associated with that don't want to do anything but just worry about themselves...there is not much point in doing it and they are fairly happy with themselves and they do live a fairly decent life and they don't...they aren't always stepping on other people's toes. I don't know exactly what I am saying, but it seems like it is heavy, anyway.

Steve--Why do people apply? If they took that attitude...

Craig--I guess...

Steve--I had similar attitudes, like I was always going to go to (?) and that was going to be my life. That was my dream life. Lots of people have some weird dreams. I think everybody has a meaning. When they start walking out and sitting down and saying "I don't think there should be faculty bathrooms and student bathrooms, I think they should go together," you know, that is a basic need that even the apathetic people have.

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APPENDIX J

Script for SADMESS Slide Show

(Slides not available at this time)

SADMESS SLIDE SHOW

Script

Slide 1:
(Title slide)

The following slides were selected from over 600 that we took during the course of the SADMESS project in 1971-72. Though it's hard to portray a whole year's efforts in just 40 pictures, we hope that you will learn a little about the highlights of our experience.

Slide 2:

For about the first month and a half, it seemed like about all we did was meet, and meet, and meet, trying to come up with some ideas for what kinds of curriculum materials to produce. Here, four of us are "noodling" about "the ideal school system"--what kind of an educational system we would have liked to have gone through and what kind of a system we'd like our materials to help build. In all our noodling sessions, we'd have a pad of big "posting" sheets handy--one's lying on the floor in the center in the photo--on which to jot down our ideas, diagrams, and whatnot so everyone could keep them in mind during the discussion.

Slide 3:

Long about late October, the "schoolbook" (Sunshine Unfolding) people took off on their idea. Here Reggie is turning around to ask Sherry what she thinks about including an idea she has just run across in her reading. Note the pile of junk on the floor--our two offices were never voted the neatest in the building.

Slide 4: Here Dan is participating in a particularly exciting planning session on the "schoolbook."

Slide 5: Hard at work in a free-flowing "think" session...

Slide 6: the remainder of the group finally came up with an idea for a community environmental fair. They began building...

Slide 7: and building...

Slide 8: and building, with the help of several hundred people and a crane from the Public Service Company of Colorado...

Slide 9: until they had not only a striking 39-foot dome...

Slide 10: but a whole buzzing downtown full of people and exhibits!

Slide 11: the Boulder Experiments fair began early the morning of May 13 with puzzled "blockheads" (those people who took charge of directing set up and take down of exhibits in each block of the fair) trying to figure out their instructions...

Slide 12: and the moving crew unloading 70 some odd tables and around 200 chairs.

Slide 13: Activities at the fair included a series of small discussion groups--labeled "The Forum"--at Fred's sidewalk cafe...

Slide 14: Children playing a simulation game, "They Shoot Marbles, Don't They?", on the Courthouse lawn...

Slide 15: a number of special food concessions (pictured here is Phil Stern preparing his yummy Japanese chicken)...

Slide 16: numerous do-it-yourself craft demonstrations and displays...

Slide 17: ...

Slide 18: exhibits by various state and local government agencies...

Slide 19: booths constructed and tended by elementary and secondary school classes...

Slide 20: exhibits put on by local service organization...

Slide 21: exhibits and demonstrations by groups from the University of Colorado and Colorado School of Mines (pictured here fairgoers are experimenting with some techniques at the School of Mines' glass recycling booth)...

Slide 22: and displays by private businesses. Here is a Mazda attracting great attention...

Slide 23: and here a fairgoer is complaining at Fair Headquarters that he doesn't think we should have allowed Mazda to display their car because it's "not really nonpolluting," while the attendant is trying to explain that we felt everyone who had something to show or say about the environment should be given

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the opportunity at Boulder Experiments.

Slide 24: We tried to gather reactions to the fair and to specific exhibits by systematically (sorta) surveying a sample of the fairgoers. Here one of our pollsters is interviewing someone.

Slide 25: In the bandshell in City Park, a couple of blocks from the main downtown fair site, a discussion of the war took place on Saturday. The President's announcement the previous Tuesday of the mining of Haiphong Harbor had precipitated several days of marches and rioting in Boulder. In hopes of absorbing some of this energy so the fair could take place without danger of disruption, we invited groups on both sides of the issue to take part in fair activities and use the fair to promote reflection and rational discussion about the war.

Slide 26: The bandshell was also the site of the bike rally finale on Sunday afternoon. The bike rally was organized as a part of the fair by Boulder Bikeways, a group promoting the passage of a bond issue for the construction of bike paths in the city. (The question was not passed by Boulder voters in the election the following November.)

Slide 27: A block away from City Park there were more activities, in the mall between the City Building and the Library. A theater group put on a carnival, complete with costumes, a face-painting booth, and dancing.

Slide 28: Inside the dome there was an organic ice cream booth and a display of environmental books.

Slide 29: Strewn around the big dome were a bunch of cardboard "baby" domes, gaily decorated by lower elementary school children from several Boulder schools.

Slide 30: There were several different musical groups wandering about--this one's a local bluegrass band.

Slide 31: Sunday evening, exhausted but happy, we packed up the tables and chairs and reopened the downtown streets to normal traffic once more.

Slide 32: Now the schoolbookers, who had taken about a month out to help with the fair, could go back to work. They had to really dig in now, editing, rewriting, checking on last-minute details, typing up the manuscript.

Slide 33: Craig is working here on some rough sketches of ideas for illustrations.

Slide 34: Here Susanne, Sherry, and Craig are learning the ropes of design, layout, and paste-up in the artists' work room at the Environmental Studies project.

Slude 35: In June, after most of the work of the project had been completed, we decided to take time out for a weekend retreat in the mountains, at the same cabin where we'd had our beginning-of-year retreat.

We wanted to sit back and reflect on the year's work, to evaluate what was good and what was bad about the year, and figure out what to pass on to others and how to present it in our final report. Here Steve's gotten into the discussion and is going strong.

Slide 36: Here we've apparently hit a difficult point, or we've just run out of energy after a long rap. (We could usually tell how well our discussions were going by the distance of participants from the floor. Steve's hit bottom, Allan is sinking fast, Janey's drooping, and Sue--in the middle--looks like she's about to fall asleep in the flowers.)

Slide 37: An aerial view of "The Big I"--Irving, our director--scrunched between the guitars and the posting board, both good symbols of our retreat activities.

Slide 38: Rocchio, our group trainer, observes our dynamics, while Dan Talks...

Slide 39: Sherry and Karen work out a point that's not quite clear.

Slide 40: Nick Helburn, one of our Board members, waxes reflective in the evening light as he gives his views of the project as a semi-outsider.

Slide 41: And when we're so tired we can't go anymore, it's off on a mountain trail to clear our heads.

APPENDIX K

Logs

K-1 Boulder Experiments Logs
K-2 Schoolbook Logs
K-3 General SADMESS Logs

Appendix K-1 Boulder Experiments Logs

Karen, November 10, 1971

A really long time has lapsed since this project began. At some point we divided into two sub-groups to home in on two separate projects or activities. The original sub-groups disintegrated. Some members switched to new sub-groups and one of the sub-groups came out with a concrete activity on which they began working a long time ago. That was the "Schoolbook" idea. The sub-group that I am working with had until today remained in a bouncing-around stage--not being able to settle on any one idea that is attractive to everyone in the group. In fact, yesterday we were very frustrated and talked about our problem--our apparent problem--in not being able to settle down or make any definite decisions. We are so concerned or worried about closing off alternatives that we can't make any choices because making a choice means closing off other alternatives. Today, however, partly by sheer luck, Bryce Hamilton stepped in for a few moments and put an idea in our heads that took root. We have decided to put on a fair in the spring in Boulder in which we will conduct a bunch of little experiments with alternative modes of transportation, of traffic patterns, noise, whatever. Then, after we have gone through this experience of putting on a big fair we will write up the natural history, á la Bob Samples, of our experience as a guide to students in other communities for ways in which they can involve themselves in community affiars. Not everyone in our sub-group was happy with the idea. There were a couple of "nay" sayings--it will never work and that sort of thing; but it appears that there is enough enthusiasm as a base that it will be overcome in a few days. Generally speaking we seem to want badly enough now to home in on something and I think I can say that this is a definite commitment on our part.

Susanne, November 19, 1971

It's very hard for me to say how I feel I'm very glad that our room is changing from lounge to office.* Something Jon said made me feel like I should be glad to hear what he said, since it came from him; I said I was glad to hear it, I didn't mean it, I looked him straight in the eye, and he looked at me rather skeptically. I wonder if he know I didn't mean it? Allan and Dan didn't say anything--perhaps because Rita and Pat were there. At the beginning we were annoyed by the constant interruptions and interviews--now we ignore intrusions and cause interruptions. Reggie hinted

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* The occasional references to needing desks tell a funny story in our development. At the first of the year, the professional staff gagged when the students insisted on filling the offices with couches and pillows and removing the tables, desks, and chairs. But as we progressed the professional staff noted, with I-told-you-so satisfaction, that one-by-one the couches were replaced with desks, files, in-boxes, and other paraphernalia of "the world of work." The question of whether this was "good" or "bad" was never explicitly settled, however.

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that we group process-subtly at first then more strongly until she got a response. Rita pointed out that we didn't always give feedback on statements made. She felt our silence endorsed the speaker's views--which I don't think is true. (1) We usually do comment but we all seemed mentally exhausted, especially Sheryl who was also physically out of it. (2) This generality isn't true on "normal" days just by observing what goes on among us.

Steve brought up the suggestion about changing our room to an office. Sheryl and I strongly endorsed it, since this is exactly what we had bitched about Thursday late afternoon.

Anyway, Phil came, Joel came (for other group), we split up. I felt Rita thought she was almighty. She dominated, always seemed she felt her... [bottom of notes torn off]

Janey, November 23, 1971

I feel once we get desks and a phone to create a better working atmosphere we'll begin working harder and more efficiently. I think we are working together as a whole much better than before. We have a very stable idea now and millions of things to do.

Susanne, November 29, 1971

Well, today we actually did something again. I'm really happy again. Dave Hawkins gave us some suggestions, Steve is getting together the Pueblo thing, Rita and Pat came, although I don't really know what happened there yet. I think their main concern was that to whomever we present our Boulder Experiments prospectus, or whose consent we ask for, we should make an impression and back it up with our specifics. But the impression was the critical thing.

Things really seemed to get rolling along, although Jon still couldn't get us any appointments with the other Advisory Board members.

Susanne, November 30, 1971

Today we had no appointments to keep, so we were on our own to do work. Karen wanted to be left alone--more or less--as she rewrote the prospectus. Jon tried to make some appointments with Advisory Board members. He, along with Steve and Allan, went over to ES (or Bob's place). I don't think Bob gave them any specific things to try out, at the experiment. I really don't think any of them asked, though. He was also going to ask Bob Palmer and Charles Kuralt to interview us! I laughed. Friday there's a group meeting.

Karen, November 30, 1971

It has been about three weeks since we got off on our fair idea and things are shaping up pretty well. Everyone is beginning to feel pretty enthusiastic about it and members of the group are taking initiative in formulating plans and ideas and actually going out and getting support in various areas. I feel like today is a little landmark simply because we

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finally pulled together our final draft of a Prospectus on "Boulder Experiments." "Boulder Experiments" is what we have decided to call our idea. In an effort to play down the fair aspect of it, for this is not going to be a normal fair, we sought out another name besides spring fair or something like that. "Boulder Experiments" is what we came up with because it carries with it the central idea of what we are doing--which is encouraging experimentation with alternatives in the physical and human environment before making final decisions committing large sums of money and time to proposed alternatives. I won't go into our rationale in detail for that is written up more clearly in our Prospectus. It suffices to say that for my own part I feel much more at ease with having written down some of our directions (immortalized them as it were). I feel that we have moved up another step in this year's experience and that we can feel that we have accomplished a little bit to this point. That does not mean there are not more battles. We have got a lot of hard work still to come--it just means that today I feel like we have accomplished something so far. In other words I don't feel like saying "I give up; I am quitting."

Allan (?) December 11, 1971

Since Karen isn't here today, hasn't been here for a day or two and will only be here on the 16th to work with us, things might be changing around here. I don't know in what way, if the change will be good, bad, or what, but so far I haven't seen an entire day go to waste, although I must admit that we don't always do as much work as we could. I'm not condemning any of us, but it might force me at least to plan each days work ahead of time. I always do give forethought to what is going to happen the next day (quite often my intentions are absolutely wrong or just followed to the letter) but now I am taking the responsibility upon myself. Everyone else in BE has apparently told what events have been going on in the past week, so I won't repeat them. I wonder if this whole project will work. Steve expressed concern about the jitney service thing--he didn't think that we could make it a reality. I have had the same thoughts myself, although in the interest of group moral, I haven't said anything. I guess we all sort of had some thoughts along that line, but maybe it's more serious than I thought. Maybe we should drop the whole thing, either that or we will have to pass off the responsibility onto someone else's shoulders very, very soon. Otherwise we will be in Big Trouble. If we screw this up really bad, I may never forgive myself.

Janey, December 13, 1971

Starting with the first of December we more or less dedicated the first half of this month to gaining the support of the Boulder School District. We brainstormed a bunch of specific activities in which the schools may be interested. The creating of these specifics was to pacify the superintendent, but we are more interested in the ideas the students come up with. We talked to Tim Fuller on the 8th, and decided to set up an advisory committee for B.E. so that we could be criticized more objectively. We are also working hard to organize ourselves and our ideas into a more sturdy structure. We would like to act as a nerve core of the project and channel people into the departments of their interests or give alternative departments of interest. We are also thinking about organizing a small core work crew of reliable people to help things along. This project sure is big!!

Susanne, December 15, 1971

We got a lot together yesterday and I wish we had what was said on tape. Allan made some really good points about people yesterday. Steve feels like I do about the work. Some things have changed in me, too; I don't have to play secretary any more, and probably won't be so concerned about not doing anything. I'm going to have to ask the rest of the group how they feel in regard to that. I was so enraptured by the things that were said yesterday, that I let the whole issue pass by. Connie is being kept busy more than ever, which I think is a good thing because she is, after all, our secretary. She has been really nice about doing all the work, too. Anyway, some of the highlights of yesterday's discussion were that we should all have the same explanation of what BE is going to be: some, or I guess the only, reason for that is that when someone wants information about BE it is consistent no matter who is contacted. Some of the things we expected from BE are that students be recognized as potential sources for anything and that students be recognized as people, especially high school students. Allan put a statement about people very nicely, I cannot begin to paraphrase it. It was incredible and I am still dumbfounded; that is one of the few intelligent things I have heard lately. Another thing, of course, was that experimentation definitely be part of the decision-making process. The involvement of the entire community is also essential. Actually, I guess I'll have to revise that--I'm not sure we do want EVERYBODY involved. Another important thing that we mentioned was that of reporting back--when only a few of us go to a meeting, that the rest of us find out what came off. We decided to buy a recorder, since no one could acquire skills that were good enough to give a thorough report of what happened.

Steve, date unknown

There's many deficiencies in organization and a lot of days not having a lot to do and other days we're working, you know, very hard. We don't have enough time to do what we want to do. Overall we have improved a lot, but it would help if we were a little more organized, know what we wanted a little more, but we have to wait for a lot of this until we have a definite date and definite okay to go ahead with our project.

In addition to what Allan said, I think it would be, I think it's also important that we have our own phone and have some desks where we could create a working situation, so that when we walk in at the Consortium we'll have an atmosphere of working.

Susanne, date unknown

I feel that now is the time to look back at what we have accomplished to date. We spent October and November trying to figure out what we would do. In the latter part of November, we decided to organize "Boulder Experiments" (BE). In December we began contacting various community leaders. We were under the impression that a lot of people were planning (and also doing some follow through) of an idea similar to ours. It turns out that this is not the case. Many organizations have had the same idea, but have not even planned anything. We had no trouble getting endorsement of our ideas. But we didn't get anything done, only rhetoric. No one these days seems to say your idea is bad.

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Susie, January 21, 1972

First half hour discussion of people's expectations about the time commitment that will be required to bring off the fair, the resources (in terms of people) available to do the work. There was considerable disagreement among the group about our ability to carry off the fair, the amount of time and work involved. It became clear, however, that everyone with the exception of Steve has other time commitments this spring, so that we cannot count on much more than the three hours a day usually spent on the project--at least for most of the spring. There are five other students already identified who are willing to work on the project. Mr. Smith from Boulder says he can provide another two or three from one of his classes to work 1½ hours a day. Susanne has lined up two sociology classes from Boulder High to construct and (administer and evaluate?) an evaluation questionnaire. I came away from this part of the meeting very apprehensive about how realistic the group is about mounting the kind of project we have in mind. Somehow more manpower is needed--even at the coordinating level. People's descriptions of what they think Boulder Experiments should be. Several of us--Karen, me, Allan, Susanne, possibly Steve and Jon all agreed on the need for more focus on the purpose of the fair. The remaining time was spent spinning ideas on homing in on the focus.

Karen:

1. The fair should be more like a science fair, not boothy with people selling things or giving away pamphlets, no sidewalk sales by downtown merchants.

2. The fair needs a focus. Karen is disturbed by the lack of intellectual content in the thinking thus far. The whole thinking of the fair should be centered on certain serious environmental problems. For instance, we should not have a booth selling macrobiotic food just for the sake of selling the stuff. Instead, the macrobiotic people should demonstrate how they are solving the world food problem.

Susanne:

1. The purpose should be to carry off some successful experiments which show the success of recycling, more public transportation, a downtown mall, so that Tim Fuller and other like minded local politicians can successfully put through some of the reforms they have in mind. The fair has to be very carefully organized to insure success of the experiments and the follow-through which will bring about the desired changes. Thus, for instance, the simulation downtown of the possibilities of Boulder Tomorrow, the jitney service, the recycling pick-ups--all have to be done so well that people are convinced of their practicality.

There was some disagreement among the group about the need for the fair to be this successful. I feel that it must be well organized, carefully thought out and executed. Nevertheless, the tone of the advertising and publicity should be that of true experimentation. We are going to try some things out as best as we can with our limited facilities and resources. We are going to give people plenty of opportunity to meet and talk and try out. We will learn from the experience. Possibly some of the experiments will be so successful that what Susanne wants--immediate political pay-off--will happen. More probably, we will learn from our mistakes. The important thing is to be imaginative and sincere and carefully executed. We want the feedback and we want people to come out of the experience more willing to try again.

Allan brought up the question of whether we want to have people experiment or whether we wanted to manipulate (influence) them in a particular direction. We favored the former. Susanne agreed to both our reactions and seemed relieved of some of the burden. Which doesn't mean that the whole project is not an enormous responsibility. It's just that we don't have to assure successful experiments.

2. Concerned about environmental problems of Boulder--need for recycling for the city, etc.

Steve:

1. Wants to focus on environmental problems in Boulder and possible (many alternatives) solutions to these problems:
    a. recycling
    b. transportation: buses, bicycles, new models of cars, etc.
    c. city planning and land use; superblock
    d. alternative public environments and atmosphere--experiments in creating more human interaction in which people share joy. We want to create a downtown environment free of cars, which is pretty, with nice music, places for people to sit and talk in a pleasant atmosphere, right where the daily shopping and commerce of the town are also going on.
2. Booths, should not be able to sell stuff. There shouldn't be many in the mall, except those which are directly tied in with city planning or what the fair is about--information about the fair, TV's monitoring other places in the fair. The booths should be somewhere else. They really shouldn't be booths in the ordinary sense. Rather, kids from a class giving examples of environments in which they would like to live.
    a. Booths--this is what this area should look like ten years from now--various people's conceptions. Let people make up their own.
    b. Fair within the fair--in front of court house or library for booths.
3. Steve's ideas of how the fair would be organized day-by-day. Possibly, use the space differently on different days.

Day 1--the place should be pretty clean. Potted plants, tables and chairs under canapies, several little groups of people playing music, hovercraft wandering around, jitneys bringing people in and taking them out of the area, electric cars driving people around within the area, somebody selling balloons, nothing really heavy--just nice and swe[illegible].

Day 2--more fo[illegible] City fathers current plans of the future, other groups' plans of the future. Bring in the booths or set-ups. Have politicians and others sitting at tables available to talk to citizens over coffee or tea and crumpets--times announced in the paper, etc. Recycling demonstrations at some location. Kids building their own environments--adventure playground happening on lawn of court house. Have some happening type art displays--walk-in environments. Street theatre. Music in the bandshell or drama. Evening lectures and movies.

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Day 3? never got there. But the idea is to go from the simple change to the big think, big experiment.

Susanne seemed to like these ideas. Questioned how much audience or participant participation we want.

Allan:

1. Seemed to agree with others on booths. Don't sell things. Have display places where there is nothing built now--Walnut Street, in front of court hourse or library.

2. Focus--in addition to other things mentioned, focus on art and more personal problems with or contributions to the environment. Creation corner--artists at work: modern dance, potters working, play or music going on at the bandshell.

3. Thought that all the things Steve suggested could go on at once but at different places. Keep Pearl Street nice and clear. Create a mall with tables and chairs, potted plants. Have another street where there is a discussion center. People come to meet town dignitaries to talk and get acquainted. Possibly have a soap box area for orations every hour. Serve coffee. At the court house have the glass recycling and hovercraft, science fair things. Library--have the creation corner. Somewhere else, the adventure playground for kids.

Jon:

1. Focus--agreed on focusing on Boulder, but show people that things they think of as far off in the future are closer than they think--e.g., monorail.

2. Felt that we don't have to sell people on specifics--rather, show them alternatives.

Susanne, date unknown

I feel very relieved that I am no longer a member of BE. I felt that all my efforts were leading to nothing--there seemed to be no progress made. At times I felt we were actually regressing. I don't have faith in Steve, Allan and Jon. I don't think that Allan is sure he wants to be a part of BE. I think he realizes that he must make up his mind soon, if he wants to pull through with BE. On the other hand, he must also notify the rest of the BE people if he plans to quit. It is my feeling that Steve is the only member of BE who really is committed to BE. This does not include Karen, because I do not know about the turmoil she went through over the weekend. From her feelings stated on Monday, I presume that she is committed to BE.

So far as the Schoolbook goes, I think I am not going to be as frustrated with it or the people as much as I was in BE. At this point people are finishing up their section of the book. I was going to start another section, but the only contact we had with a person in the field (extentialism) could not be interviewed until the end of February. We decided that we didn't want to drag out the section about philosophy any more than we had to. We hope to be done with this section by the 9th of February. On the 10th we plan to see Bob Samples--about the format, design, structure of the Schoolbook. I am not sure yet about what I will be doing. I am sure that this fact will create no problems.

Karen, March 3, 1972

Tim Fuller visited yerterday and upset the BE people greatly, pointing out that we should have more, many more, people working on the fair already; that we aren't organized; and that maybe our thinking about money needs is unrealistic. Emphasized that if we go ahead and do the fair, gotta make absolutely sure we do it well--otherwise we'll blow the hopes of a lot of people around Boulder--turn off people to new alternatives we experiment with.

This brought to a head some things that have been floating around in my mind for the last few days. We have, in meetings, several times over the last few months discussed "getting organized." Every time we come to a decision--or so I think, anyway, everyone seems to agree to the latest proposed organizational structure. But, then they go about doing things like they want to in the days that follow, completely or nearly completely ignoring the agreed upon division of labor and structural categories. For instance, at one point the BE group decided on a four-category division of the content of the fair (I wasn't at that meeting). Then, somehow, the original four categories got slightly shifted (I don't know what the original categories were, but Reggie says they were different from the subsequent four) to a different four: transportation, recycling, city planning, and human relations. However, after using these for a few days the students decided (I think) that they need to be broken down further. This is the point at which I entered the picture (after having been sick with the flu for a time). So we developed a more differentiated set of categories (the set in the second prospectus, with the major divisions of physical and social). I left that meeting with the impression that the students agreed that the previous four didn't make a lot of sense, for instance, city planning really included almost everything we were interested in, including one other of the four categories--transportation. They affirmed, anyway, the new set of categories and said that's what we're going to be working with henceforth.

But, a few days later I noticed that when they were giving their pitch to potential volunteers they were using the old four categories. Well, I thought, it's just too much trouble to run through all the 12 or so on the new list, so they're just simplifying for the purpose of getting the general idea across. I let it ride.

Then, just a couple of days ago, they brought John Rifkin in and said, "Hey, we found a guy who wants to coordinate the recycling." "Oh, boy! Er.....a recycling, yes, er..." I thought. All this time I thought we were thinking in approximately the same terms about how the fair content organization was to be handled. Wrong again, Wiley.

Also, it's begun to bother me during the last few days that everyone seems to be doing everyone else's job. Jon does a little bit on computers, a little on transportation, a little here, a little there; same for Allan; same for Steve. And there's much duplication of effort; much confusion about who said what when; who's handling what; whom we've gotten commitments from and exactly what those commitments are; who's already contacted whom and what they said; ad infinitum.

Another point: we held a meeting on organization last week, which we taped to send to Reggie's friend in New York, and at that meeting decided how to divide up some of the most pressing tasks. Each one of us took on two or three limited tasks. Did anyone follow up and do what they said they would? Only in a few cases. For the most part everyone just continued to jump around among their own and everyone else's jobs, flitting from here to there.

Another point: we complain that we're not getting enough volunteers. Yet, we've had tons of people make suggestions about people to contact for specific kinds of activities, jobs; and we've had a large number of people offer to do something if we'll just tell them what to do. (This last disturbed us a lot at first--we were disappointed that the fools weren't creative enough to figure out for themselves what they wanted to do. Didn't recognize their desire to help us to do what we wanted to do, rather than do their own thing.) Anyway, the problem isn't that no one's interested in helping us. The problem is us--we don't have clearly in mind a variety of tasks to suggest these people take on immediately. And we don't follow up immediately on contacts and suggestions of contacts. And we're bogged down because we're trying to do all the contacting ourselves rather than delegating these duties.

Finally, I got sorta mad at an exchange yesterday following Tim's visit. Wednesday morning I had talked to Tedd giving him a very thorough run-down on what needs to be done to coordinate and pull together the transportation section of the fair. Tedd said he would take over coordination, which takes a big problem area off our backs, much to everyone's relief. This is the kind of commitment we've been looking for. Ok--during the meeting referred to previously--the one that was taped--when we had each designated tasks we'd be responsible for , I had said transportation--I'd get someone to take it over and brief him thoroughly on it and follow up on his work. Then the kids were saying yesterday afternoon that they were going to have to brief Tedd, tell him what to do, give him names to contact, etc. Also, earlier, they had really resisted when I asked them to give him a report on a meeting with Nevin Platt people Thursday afternoon and to give him additional information that they'd gleaned that afternoon. The sequence ran thusly: at first, they didn't see the point in reporting to him immediately and turning over their transportation tasks and information to him. Then, later they were planning to redo everything I'd already done, or so it seemed to me. The gist of all this is, that to me it didn't seem that they quite grasped the point of having a transportation coordinator (i.e., to relieve them of the burden), or the way we should use him (i.e., we should turn over all our information to him--while it's fresh and relevant--and let him follow it up; we shouldn't duplicate each other's efforts, let one person mainly coordinate with him rather and also avoid giving conflicting instructions to him, though certainly tune him in to all our different viewpoints).

Then, there are a whole bunch of little nitty-gritty problems: like why do we have three calendars--what's wrong with using the one single one we'd set up some time ago? Or, why do I find miscellaneous notes, etc., scattered here and there about the room every afternoon after everyone leaves--notes on phone calls, etc., that look like they might be important for someone to keep track of? And why can't I ever find phone numbers of people, duplicate copies of the prospectus, etc., when I need them? How come half the appointments everyone makes never get put on the calendar, so when someone sets up other meetings they frequently put them at bad times, i.e., when no one else can attend?

Actually, depressing as the above may sound, I don't feel depressed about our situation. Worried, yes. But all these problems are soluble--quite easily actually. The unknown in the solution is whether or not the students will really try to follow some organization if we work it out. Or will they just continue to be sloppy about the office itself, about following through with the tasks to which they commit themselves, in letting themselves be sidetracked, becoming bored with their own duties after three days, etc. A second element in the solution is myself. This quantity isn't so unknown, at least to me anyway. I must be on the spot with all attention given to SADMESS every afternoon. I can't be so sloppy as I have been about letting other projects absorb afternoon time. The best course for me to follow, I think, is to begin staying right on top of what's going on: to coordinate this as closely as (or closer than) I'm coordinating the Social Ed projects and pubs. I think I shall try to do the following, beginning next week:

1) talk with each student each day to find out (a) what they did that day, and (b) what their plans for the next day and next week are
2) post information from these talks on the fair schedule; file notes from these talks relevant to each content area in appropriate files
3) try to show them each how I proceed
4) try to get a clearer perception of how each of them proceeds, what their frames of reference and priorities are--from their point of view
5) bug them to get things done that are high on their priority list; remind people when they're getting off the track or fowling up or holding up someone else's work
6) keep looking ahead and trying to foresee coming priorities, etc.

Connie, May (date unknown)

I actually did not feel a commitment to the fair until the afternoon of April 7 at the presentation to the executive council of the Downtown Businessmen's Association. I had been busy all week typing up organizational charts and detailed descriptions of what we were about in order that the students might give an impressive presentation.

I remember a distinct feeling of "us" and "them" as we marched down to "conquer" the merchants. Reggie wore her San Francisco suit while everyone else "dressed up" also. Naturally the merchants wore the typical suit and tie.

I can remember feeling disgusted as I sat in the audience and noted complete indifference as well as automatic disapproval on the faces of some of the merchants.

I was feeling quite proud of the students as I compared this presentation to their abilities to express themselves at the beginning of the year. However, because of the apparent attitudes of the merchants and the nervousness on the part of the students, I felt a surge of relief as Reggie took over to sort of summarize everything.

Few comments were made by the merchants as their chairman, Ed Munson, made it known that we were to be expedient with our presentation and they were to hold discussion until after we left.

We went away with mixed emotions. We had no real indication of approval or disapproval but felt that "maybe" we had done okay. Later at the office "our man in the DBA," Jay Tracy, called to say that he felt the presentation was great but we needed more specifics as to the actual amount of space we would be using, parking facilities, etc. This was to be presented at the next Friday meeting. The merchants had been impressed with the amount of time and effort that had gone into the fair so far, but that still did not lessen the threat to their pocketbook.

I certainly began to feel deeply committed at this point--I no longer felt like staying within the confines of the secretarial role.

Unfortunately I was gone the next three weeks and when I came back my initial reaction was that everything was in total chaos. I spent a couple of days feeling completely frustrated at the way things had been organized and actually wishing I had been there to gain control and reorganize. I realized of course that it was too late to restructure everything and I had better do the best I could to accomplish as much as possible in the organization (or lack of) that existed.

My specific task assignment was to organize a fair Headquarters... [did not finish the paragraph]

Author Unknown, After Fair

1. What was the fantasy of the experiment? What was our idea?

That the community would be involved in alternative ways of experiencing their environment and that these new or different experiences would provide ideas for improving the future of Boulder. Through community involvement there would be a greater likelihood of concern and commitment related to "man and man" and "man and his environment."

2. How did we go about turning our idea into a reality? Talk...Organize... Help...Too much on some things...Not enough on Others...

This is difficult to answer since I was not aware of all activities. The assignment of people to task forces was an appropriate way to organize the work. In retrospect, it seems that stronger overall direction would have helped soothe some problems--although many of these "problems" seemed to simply be the reactions of people to pressure.

The students performed responsibly and carried out numerous tasks efficiently and effectively. A fair of this sort, in my view, is an enormous undertaking that few see as being made up of millions of little decisions that have to mesh on the day of the big event. The students who did the work performed admirably. Greater participation from all eight would, of course, have made things better and easier for the others who did work. I suppose the most negative criticism I would offer regarding student work is that they did not involve as many other high school students as I would have thought possible. I know there were a number of volunteers, and many were very helpful, but eight high school students would have been able to subvert the entire school, including and mostly, teachers to provide additional support from the establishment.

Staff participation was, for the most part, a reluctant "if-it-wasn't-for-us-where-would-you-be" type fulfillment of some obligation. Staff expectations for students was not always realistic. A number of staff members, however, pitched in with time and energy to provide important inputs; without this effort it seems doubtful that many of the events would have come off.

The War business, I think, was a convenient excuse for an immediate pullout and cut across student and staff troops.

3. What was the actual result? How close do we think it came to our fantasy? Different... Change... Implement in a different way...

The organizational structure was basically sound. Stronger overall direction would have helped. Greater active involvement of schools and teachers would have generated additional support and attendance. More meaningful commitments from merchants is a must. For the very real benefits a small and select number of merchants received, they should be ready to offer a greater contribution than passive and hesitant neutrality. Exhibitors, too, while they were helpful (essential) to the idea of an experiment they received special advantages that came with participation. Generally, a somewhat tighter organization with a more careful delineation of specific responsibilities, perhaps a longer lead time for planning, more school involvement, greater expectations from merchants and exhibitors.

Jon Rasmussen, After Fair

When I started on Transportation, things were already pretty much getting together. We had permission to use the buses and John Rifkin had found an insurance company that would cover the insurance at a decent price. When I picked it up, I just had to contact all of the bus drivers to find drivers for us and get the bus routes figured out and the bus signs put up before the fair.

These are some of the problems I ran into. The drivers seemed sort of resentful that I was taking up their time--not all of them, but some of them did. Some drivers, after the first contact, when we later called back to give them all of the information, we could not contact them again. Originally we wanted to have nine buses, but we got down to six because we could not get enough drivers. During the weekend three of the drivers did not show up. This caused more problems. Some of the other drivers just walked off. They said they had volunteered for so many hours so they parked their bus and left, which left us in kind of a predicament. It all worked out because Tedd found other people to drive them.

Another problem was figuring out the bus routes. We talked to Dale Moburg and figured out our priorities and then came up with the bus routes. We made four-foot shafts with BE painted on them and maps of the routes stapled on a card attached to the stake. After we had talked to all of the bus drivers, the biggest problem came for me, and that was getting all of the bus drivers scheduled for a certain time. We used three shifts a day--9 to 12, 12, to 3, and 3 to 6. I had to put all the drivers down for a time and then we had to call them all back up and tell them what their times were. Then we had a big problem because some of the drivers started to say things like, "Well I am only going to be here Saturday morning" or "I have people coming Sunday" or "I don't want to work Sunday night" or something like that. As a matter of fact, I didn't think it was all going to come together at all, till the last day I was working on it, which was the day before the fair.

We mailed letters to all of the drivers who had said over the phone that they would drive for us. These letters said "yes" or "no" I will drive, and they had a return envelope with our address on it. It was sort of a headache every day coming in to a stack of them and some of them said "no" after we already had the schedule pretty much worked out.

One of the things that played weird things on my head was the last week before the fair and that was like everything was coming to a head and it was really nerve wrecking. Like I didn't know whether the transportation was going to come off or not, and then there were the demonstrations on Wednesday and my head felt like it had a big 100-poung weight taken off of it, as I thought--we all thought--the fair wasn't going to happen. And then the next day we come in and the fair is still on and then all of a sudden this big thing came crashing back down on my head and kept telling me don't do it, don't do it and I felt I was going crazy or something. I just went ahead and it sort of all worked out, but it turned out to be ten times harder than if the demonstrations would not have been there.

One of the last things I did on Transportation was on the Friday before the fair. I went down to the school bus station and handed out all of the folders to the drivers. In each folder there was a passenger count sheet, a map of the route, and a schedule of all the bus drivers with their times and everything. I took those down plus the BE signs for the buses and I talked to the two head guys of the school bus system--and it was sort of a strange thing, like they didn't know anything about the fair at all. They said one thing that sort of upset me and that was that if there were any signs that the demonstrations were going to start up again, they would just pull the buses right out from under us. This sort of did weird things to me when I figured I would have to call all those bus drivers and tell them not to be on the corner waiting to relieve the other bus driver.

I guess the last problem I had was we had to find somebody to put up all the bus signs. We had forty-some bus signs and we didn't find anybody to do it until about 6:30 or 7:00 Friday night. I did not know if they were going up or not. We gave people the hammers and maps showning them where they go. I guess they all got up. I saw them around town where they were supposed to be when I was going around that weekend.

I guess that is pretty much it, except for like Saturday morning when I got down to the fair, I hadn't seen any of the school buses on the road way down there and I thought, "wow" maybe they had pulled the school buses out from under us or maybe the drivers did not show up. All of these bad things were going through my head. But then, I was standing in front of the HQ and I looked towards Broadway and saw one of the buses and it was really a gratifying experience.

Appendix K-2 Schoolbook Logs

Sheryl, November 19, 1971

It seems the group has worked with three major ways of dealing with things. First, we adopted a rigid extreme, i.e., set objectives, deadlines, regulated procedures, etc. Secondly, we then went to opposite extreme, after realizing the rut we had fallen into. We preached "open-endedness," "awareness," and generally fell into another game almost as bad as the former.

At this point I, and other members of the group, felt uncomfortable with the learning activities that we were supposed to be doing. I began wondering if "curriculum development" was even relevant to the basic problems that I thought were important. Can you program an activity for someone to learn something about values, about judgment, about consciousness. I thought people needed room to explore different areas, different problems, different solutions. I also was not completely open-ended, I thought there was a problem; people's states of consciousness, awareness. I wanted to help others and myself explore why people do what they do and what mechanisms or tools are available to help people cope and change the world they live in. The ideas to be worked with were pretty abstract, but isn't the whole environmental problem? Don't we have to get to the roots of our actions?

The ideas of giving students resources and tools to explore these problems of the human environment and possible solutions was what formed our Schoolbook or Whole Earth Schoolbook. In making these decisions about what I really wanted to do I think I escaped the rigidity of both extremes that I had fallen into. What was very important, but also very hard to learn was that you should do what you really want to do and what you think is important. It was quite easy to fall into ways of doing things that are not really you. We found that we couldn't be productive in an environment that is not our own.

We had a meeting today in which we discussed instituting some things that were discussed in our rigid extremist period. When we rejected that period we also rejected all that went with it, namely, organization. I think we are now recognizing the need for organization within our flexibility or to sustain our flexibility. I think we are now acting as a group in a combination of the two extremes and in ways that are natural for us.

Craig, November 19, 1971

I have a headache, but that's cool. One thing that for a long time has stuck in my mind, that is about when our groups changed (week of 25th of October) and the book began. I was getting dragged out and when we changed, I felt about 1,000% more energetic, enthused, etc. I still feel good about it for the most part. Personally, I know that I have changed in this period in that I am much more at ease and more confident when talking to people. As for what happened today--it obviously had some effect because I'm actually sitting down and writing--what good it will do I'm not sure.

One thing I'm bothered about is that at times it seems like nobody takes what we're doing seriously (including myself) and it ticks me off at times.

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Dan, November 29 to December 3, 1971

On Monday this week we talked to David Hawkins with the Center for Environmental Education. (Or something like that). I didn't think we gained any pertinent information, but evidently the others thought we did. I spent a lot of time at the library. I should say I wasted a lot of time because the only things I could find were no good anyway. Maybe I'm a pessimist. On Tuesday we talked to a Rabbi; he gave us a very good article on Judaism and ecology. We dittoed it so we could have a copy for our own use, but I don't think that anyone read it after we dittoed it off. I didn't even read all of it. Then I wasted some more time at the library making sure that they didn't have anything that we wanted. Wednesday, some people for the Kharma Dzong were supposed to come and talk to us, but they were stuck in the mountains because of the snow. So we checked over lists of books and films and marked the ones that we thought would be possibly interesting or valuable. I think that we really got something done for once, we sent letters to all the editors or producers of these books or films asking whether we might be able to borrow or view them. But with our luck, the letters will get lost in the mail, or else the publishers will not let us have them unless we pay $500 dollars apiece for them. Which we can't afford. I think. Today, Thursday, we spent some time in a large group meeting only to find out that we didn't have anything to meet for. So Sheryl and Reggie went to the UMC to hear some cat's mother talk. Janey and Craig and I are waiting for some guys from the Kharma Dzong. So I decided that I would write this log rather than waste my time completely.

It is finished.

Janey, December 2, 1971

On Monday this week we talked to David Hawkins with the Center and I am not really sure that we gained a whole lot from him. We got his ideas and feedback on an outline, discussed a couple of possible resources with him. It was mainly our suggestions that we had heard before that we were checking out with him. We neglected to ask him about the stuff with existentialism and other references from the philosophy department of the University, which was one reason I wanted to talk to him.

On Tuesday we talked to a Rabbi at the Hillel Foundation and he gave us some of the most concrete references from the Bible that we have gotten from anyone. Other people have told us generally their beliefs and technically how it relates but have not given us anything so specific. We borrowed a magazine and copied it. I read the article in it--I think it would be good to include the whole thing in our book or at least a good deal of it.

Wednesday was a day which we caught up on paper work that we had not done and probably should have and we wrote form letters and I rewrote the thing on macrobiotics. Craig is going to do the thing on the transcendental meditation because he knows a lot more about that.

Today I thought was really neat--we had this guy come from the Kharma Dzong which is a Budhist meditation place. They go on the teachings of Rimpashe. It is a very practial belief. It started out in Tibet which is a country where it is really hard and they did not have room for anything that was not practical. However now that they are headed more into the 1970's he is insisting on more interaction with society. They are doing things like starting a restaurant on Pearl and just generally trying not to ignore problems but instead get into them. They don't allow drugs for example, because it takes one away from one's problems when one should be able to face them. They use meditations as a mind expanding process to help you look at the environment as a logical process instead of a big muddle. It also poses the question of whether to accept anything as being a given fact.

Craig, December 3, 1971

Today we again argued about the categorizing of our outline, (i.e., everything could come under one heading).

Wally Toevs made a good point that dealing with belief systems (Christ, Ord. Hin., etc.) might not be too good because people tend not to follow the basics of the religious teachings.

Now we're more vague on what we're doing (at least me).

Unknown, December 13, 1971

Nothing exciting has happened. I have spent all my time reviewing books and articles, and trying to make telephone calls to set up appointments but no one has been in.

We talked to Rita, Tuesday, last week and she gave us some obvious advice, which we followed. We talked to Janey's father, a librarian, and he told us how to review and get copyrights. Then on Friday, Reggie, Craig, and Sheryl went to talk to Bob Lester. I stayed here and reviewed two books on yoga. Then I found and copied a far out excerpt from Henry David Thoreau on man and nature. Today Kevin Locke and some other cat came to talk to us on Indian jazz. The cassette was fowled so he's coming back. Reggie is bombed from her long weekend but won't leave til 4:00.

Craig, December 29, 1971

It seems like we've been spending a great amount of time on this one section and I estimate that it won't really be completed until the better part of January 1972. Everyone has been reading books, making comments, etc. Hopefully we will get the books finished (though we're swamped with them) pretty soon so we can start organizing and trying out plans for our basic layout of the book. The layout seems to me to be a very big and necessary task that needs to be undertaken, as if it is not pleasing, eye-catching, understandable, organized properly many people will be turned off and the information there in will never be penetrated. So--Let's get it on. Probably we're going to get some artist-layout dude to help us--who knows.

The idea about the integration of BE and the Book has been floating in my brain so I shall expound some of those thoughts. For the most part it seems like a pretty decent idea, however a number of questions arise within me--(1) How in the name of Heaven are we going to get a book type arrangement put together by early May? (2) We have to get an idea more of what BE wants from us, because, it is my feeling that no one is really clear on what each group wants from the other. (3) Are we going to have to alter our format--I hope not, as I feel that our idea is good and should not go down the drain (I don't think it will). (4) Let's have a meeting--Hurrah!!!

Since next week is proposal writing time I'd like to say that I don't have any real concrete ideas, but I think I'm interested in helping, if I'm here.

I was just gazing at our outline and I think it is necessary to revise it--soon! especially the part on activities--what activities? We've said nothing as to activities in #1 so maybe we should re-evaluate our criteria, or possibly activities are not applicable to #1, but perhaps we should delve into our think tanks and try to decide--Yes or No and plunge forward.

Sheryl, December 20

The last few weeks have been a quiet time--a time of much struggle, contemplation, frustration and joyful realization. We are finally coming to brass tacks with our project, and it seems difficult sometimes. We are working on the part of our book dealing with Philosophical orientations to the environment and how they affect people's interactions with the environment.

I am working, specifically, with far-eastern thought. One major problem is identifying how these religions or philosophies pertain to man's relationshop with the environment, is the inherant quality of this relationship in the "world-view". The daily practices of meditation are harmonious interactions with the environment, in themselves. There is no duality or separateness between man and his environment. These basic concepts that are inherent in Zen and other eastern religions are very hard to convey. We have had very good luck with professors from C.U. helping us with interpretations.

We seem to have gotten into a very booky syndrome. This is very understandable, considering the nature of the subject. When putting the format and presentation together we will, hopefully, get away from this.

An interesting prospect for getting away from our sort of ethereal abstract image has come up. This would entail us combining our energies with the energies of the "Boulder Experiments" group. We could apply our abstractions to reality and be a preparatory force in the high schools in broadening the perspective on people's realms of experience. This could also involve bringing together many different people of different orientations to the community or from the community.

The problems of deadlines and time limits seems to be arising again. We have so much to do, with just the philosophical orientations section, that we are wondering what kind of time limits are realistic.

If our catalogue, itself, is not that beneficial for others, the process of enlightenment and education for us and those involved in its formation has been very important. We are forcing ourselves and others to question their beliefs or faith in terms of this new problem: Man's interaction and relationship to the environment.

Craig, December 30, 1971

To start off, this has been a rather unproductive week for me. On Tuesday I sat in on the proposal trip, didn't like it and left.

I'm trying to write a book review for Sci Borg and Art of Living, and am having a difficult time getting my thoughts formulated on paper the way that I want.

One thing has been hassling--I'm really absent-minded when it comes to losing papers. I can never find what I did with the stuff I had the day before--oh well, probably just a spell.

Here it is the end of 1971 and we still have a long way to go on #1.

We haven't done anything with the more Western things, i.e., Exist., Marxism, Hegel, Goethe, etc., etc. I hope we can get going on those soon but the people we need to talk to are at C.U. and are on vacation until about January 15.

Sheryl, January 4, 1972

After working on the project for a spell we found the need to define our purpose more clearly. I spent some time reading Irving's paper, working on the EE proposal and re-examining some of the outcomes of our studies. We are spending some time brainstorming our ideas on EE and how our project fits into EE and what purpose it fills. This is my rough draft before group discussion...[rough draft apparently lost]

Author and Date Unknown

Last week we came to a point where we had to get it together on the book, that is we reached the point where we have enough loose ends that different people can each take a handful and put them together. Even though we still have a lot more to find. So now we are both collecting and compiling. We all have something tangible to....[not finished]

Janey, February 16, 1972

We hope to involve other people in our experience, thereby making it more significant. Certainly we don't expect anyone else to learn the same things in the same ways, or have any of the same experiences, but if anyone else can be stimulated by our book to go out and explore something, and even come close to getting any of the feelings we have gotten from our exploration, then we will have accomplished a major goal.

The farther we go with this book, the farther away we go from "environmental problems." It is becoming much more about people and modern society, which perhaps is environmental after all.

Our second section is both more down to earth and harder to grab a hold of. There is very little significance in its assigned title "Living in the Belly of a Monster," because the more we try to pin it down, the bigger the monster gets. But this is rather a natural aftereffect of working on the first philosophy section. The farther we go the more we want something down to earth and specific, and the harder it is to find it. Perhaps we need some very strict specific definitions, but I really don't want to be tied down to working with something like that. The problem is in how to get something done, and still "let it flow."

Another difficulty is that we often seem to talk around in circles. Instead of actually clarifying whatever the point was it gets more confusing and quite often it is something that was clear to start with--someone just got nit-picky.

I am not sure we are ready to work on format with Bob Samples yet. It was also bad to stop the "Monster" for re-evaluation when we were just building up steam. I feel like I am just tagging onto the group, but am not sure what to do about it, or if I can or want to do anything about it. Is it out of the hands of us all?

K-3 General SADMESS Logs

Author Unknown, October 10, 1971

Today we went outside, across the road to a clearing above. There we sat for an instant, silently and then Irving asked us what each felt they had done creatively so far in life. Responses varied, but I got the feeling, much creating was done personally, alone; although Sue and Reggie had done (and Steve) other things among a group. Allan stated my feelings when he said "it's (creatively working) filling a gap inside of your own self." I feel this is really smashing the point: that's it exactly--filling a void. Others thought that you had to share the end products with others--I interpreted this to mean, that in order for the end result to have value, it must be shared or "shareable" with others. I don't believe that, now or then. The last statement was a contradiction.

Rick started going his way: processing the group. He felt we had three main problems to deal with: (1) roles each has in the group, who takes authority, etc., (2) our decision making process (procedure), and I can't remember the third one. Anyway he got into a hairy speech about that. Allan interrupted and said he was lost, and thought Dan and Jon were, also. I personally know, that I wasn't listening willingly and wholeheartedly. This was after his comment about the void in oneself. Thank God I had to leave with Sue and Janey to make lunch. I was bored and getting tired of Rocchio

So after lunch we sat around, in two's and three's and just talked about lots of different things: grass, economics, poverty, and more. I had a chance to loosen up. I have the feeling Dan feels left out. He mussed around the jeep, by himself. Jon and Allan also feel left out, but they (Jon and Allan and Dan) have different "left out" feelings. I think. I don't know what it is. Then at 3:00 we got together and Allan came up with a good idea of how to proceed on Monday--more specific--the next two weeks. He wanted three guys, one being a chairman, to get together all the raps etc., and present it to the group. He volunteered to be the chairman. I think we were all relatively clear and/or accepted this method of group processing. I know that Irving kept worrying, he wanted something that has been tested--something more like Robert's Rules of Orders--it has an answer for every situation. I've taken a nap since I began writing. Is that significant? I thought of a third problem Rocchio said we had--vocabulary. We haven't agreed on one set of terms yet. I also think Karen takes much responsibility for the group. Our success and failure. She's very sensitive. This is what I sense. Is it how she feels?

We decided in that last hour that we would do more work in small groups, but these groups would be in the same room. Tomorrow, we have three choices to make: (1) get into groups and do research: what types of games exist, what has been done in EE (environmental education); (2) start some topics and make an activity; (3) force field analysis--Rocchio's three problems. We need to try a new decision making procedure, and possibly make an agenda for the day. Irving felt we should all have the same set of rules and be familiar with them. We also discussed equality--roles, authority.

Karen, October 11, 1971

We just returned from two harrowing days on our retreat up in the mountains in which we became intimately acquainted with the ups and downs--mostly the downs--of our group process. We spent a little time on actual substantive tasks of the project--most of the time we worried as a group or as small groups within the larger group about how we are ever going to get along with each other and work together. I personally got fed up with the inward-turning analysis of ourselves, our group, and its process. I think the group process would be helped more at this point by doing our group process rather than analyzing it. I think most of the students would prefer doing also, but in another sense. They would prefer diving right into their activities rather than studying up, boning up on background information about environmental problems, first. That appears to be what our course of action will be for the next week or few weeks. Much to the dissatisfaction, I believe, of Irving, and possibly Sue. However, to their credit they are willing to go along with the idea and see what happens.

Karen, October 22, 1971

Paul Cromwell from the Office of Education and Ron Bigelow, a consultant to him, visited SADMESS officially today. Everyone was very surprised that he had long hair tied back in a knot. We had a very long and interesting conversation, during the afternoon which was carried on at Reggie's house for a few hours during early evening. Paul Cromwell seems to give greater emphasis to the group process aspects of this project than to the actual output--the product. Though it was refreshing to see someone that was not so concerned about the product, I still feel that both of our objectives--the product objectives and the development objectives go hand in hand and are inseparable. If we don't succeed in one then we really don't succeed in the other.

Reggie, date unknown

A lot has happened in the last two months. I remember our first meetings in the beginning of October where the only agreement we could reach on an environmental problem was the problem of population. I remember the stress on materials so detailed they would be teacher-proof. I was struck by the conventional suggestions and ideas I heard--nothing very new or exciting. But as I thought about it, I understood that the only models the students had to build on were those they were exposed to in school. They hadn't had the time away from school to clear their heads and evaluate the process. They are still reacting to it. I remember how quiet it was when visitors came and how awkward it was. I felt they looked to Karen and me to fill the gap. In many ways to step in and play the teacher role--to take some leadership.

By allowing the void to exist and not jump in and "play teacher" the uncomfortable and frustrating feeling continued. No one could agree; no one knew what they really wanted to do; the old curriculum models were not exciting but what else was there to do?

The first big turning point to me was the day Paul Cromwell came to visit. A few days before I felt Sherrie reached an "Oh-this is what it is about!" That day I experienced Steve as seeing things with a new perspective. The following Monday we spent with Bob Samples and a few more switches were turned on. Things then began to happen. We confidently discarded what we

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had done so far and turned to more open and less structure materials. We saw the need for allowing the individual student to have a say in what he does and to do what interests him.

Up until now we had been trying to do something the way we thought it should be done and we were not very involved nor interested. The same thing would be true of any students who were given our detailed and careful planned out activities. It has to be their own thing.

The second big turning point seemed to me to be about the third week in November--the 18th or 19th. When I heard comments about how we needed a schedule. The idea of a schedule was rejected strongly after our weekend retreat (October 9-10) as too restrictive and not allowing for alternative ways of doing things. The importance of this new insight for me was the confirmation of the idea--the students have to feel the need for schedule, model, etc., before they will use it.

However, we still have a long way to go--there are still some members of the team who are drifting along--not really involved. We come up with ideas like keeping a log, having bi-weekly meetings, steering committee, etc., but we don't follow through.

Karen, March 8, 1972

We had a budget meeting today--the first serious one for all of us. Irving and Ken explained lots of things about procedures for handling money, etc., that we didn't understand.

It turns out that we have about $8,000 in addition to funds already earmarked (for salaries, indirect costs, and employee benefits). We decided to divide the $8,000 equally between Boulder Experiments and the Schoolbook. Thus each group has a $4,000 budget around which to plan for the rest of the year. We were, of course, ecstatic! (Oh, also we set aside about $4,400 before the $8,000 for end-of-year costs--repro, secretaries, etc., on final report.) Among the nitty-gritty questions we discussed were:

1) procedures for spending the money: petty cash fund operations and purchase orders--step-by-step how-to-do-it (Karen ok's expenditures)
2) receiving donations for Boulder Experiments (a separate bank account isn't necessary; SSEC is non-profit and can receive donations; we will, however, set up an account within the SSEC books separate from the SADMESS account)
3) Ken is checking into insurance, if extra is needed for the fair.

In the middle of the discussion I was hit by a Tremendous Insight! Very often in my dealings with the students I assume that they know things they don't already know and get angry with them for not readily seeing the logic of my answers to their questions, of my suggestions, etc. Steve and Jon had been plaguing me ever since the meeting with Tim Fuller about our budget--they said they wanted a separate bank account, we need quicker ways to get money from our account, we've got to incorporate because of liability, etc. I couldn't understand why in the world they wanted a separate bank account, to go to the trouble of incorporating, etc., since the SSEC is already set up for that. After a brief dismissal with the words, "But that isn't necessary, don't you see, cuz the SSEC already takes care of all that," I couldn't see why they kept worrying about it. Finally, I just said, "Wait for the budget meeting Wednesday. I can't answer your questions cuz I don't know enough." Which was partly true. But partly I did know enough to allay their fears--if I had just realized what their real questions were. I didn't realize that they hadn't the foggiest notion about standard business accounting procedures--things that even I know, for Heaven's sake! They didn't understand how a petty cash fund works; how to get a purchase order and that purchase orders were common business procedures throughout the country--you don't have to pay for everything in cash on the spot; that even though the SSEC has one bank account, we don't worry about getting SADMESS funds mixed up with other project funds--they get handled separately through the bookkeeping process and that we can conceptually handle BE's $4,000 separately even though it's deposited in the same account with other SADMESS and SSEC funds. Amazing--must be more patient and try to discern what the real questions, as opposed to the verbalized questions, are.

Dan, date unknown

I have been part of a rather extraordinary learning experience since the beginning of this school year (1971-72). After the usual first semester registration procedure, all students received an announcement that the Social Science Education Consortium (SSEC) in Boulder was seeking volunteers to particpate in an environmental education project. The SSEC was funded by the Office of Education to hire eight high school students who would develop curriculum in the general area of Environmental Education; the idea being that high school students would know what types of things they like to learn and would have some innovative ideas on how these things could best be taught. They would work from 1:00 p.m. to 4:00 p.m., Monday through Friday, and receive Social Studies credits and hourly wages. It all sounded very interesting and too good an opportunity to pass up, so I applied along with students from the other high schools in the district. I filled out a preliminary application form, part of which was an essay on why I thought I would be good for the job. Then several applicants were requested to appear at a group interview, and after this seven other students and I were accepted. When the group arrived for work the first Monday, we found that we were given the dubious distinction of being labeled "SADMESS" (Student Assisted Development of Materials on the Environmental and Social Studies).

The first two weeks were scheduled for us by the two project Staff Associates, our "bosses," Regina M. Greene (now Gray), and Karen B. Wiley. During these two weeks we visited various professional curriculum developers in the Boulder area; primarily: "ES" (Environmental Studies), and "BSCS" (Biological Sciences Curriculum Study). From talking with members of these institutions, I learned "Curriculum Development" is a very broad term covering just about anything. BSCS is a rather conservative organization which develops curriculum "By the Book." They produce volume after volume of traditional biology books, of the type found everywhere in typical schools. ES, on the other hand, presents an alternative to traditional learning. It is a very liberal set-up where literally, anything goes. Student involvement is of primary importance, rather than book learning.

The SADMESS students tended more toward the ES type of development because it offered more opportunities for various learning activities to each student. So, with the self instituted motto "Remember Alternatives" stamped indelibly in our brains, we started work. After a period of false starts and misfiring ideas, we came to the conclusion that eight people formed too large a group to work cohesively and efficiently, so we divided into two groups of four; on one side, those who were more "action oriented"; on the other, the so-called intellectuals." I was one of the "intellectuals." The action-oriented group organized a project which they called BE (Boulder Experiments), which would experiment with a more sociable human environment in Boulder's downtown business district. They are planning a community fair to be held in May 1972, wherein automobiles will be prohibited from entering the business district, and downtown merchants will set up various outdoor booths for selling merchandise, demonstrating products, or just entertainment.

The "intellectuals" decided to compile an Environmental Resource Catalog, but as it has turned out, we are producing a book with greatly changed objectives. We decided initially that we should try to determine the basic causes of the ecological problems. My reasoning was this: an individual will act, in a given situation, according to his values. His values are determined by his basic philosophy, whether or not he consciously ascribes to it, or by his religion. Assuming that pollution is bad, there must be a fault somewhere in a person's philosophy or religion, if it allows him to act in a way that causes pollution. This reasoning was shared, in part at least, by the other three group members, so we decided to make a study of various religions and philosophies of the world, and see what their doctrines said about man's relationship to his environment. In the course of our research, we talked to representatives of Christianity, Judaism, Buddhism, Hinduism, Taoism, International Society for Krishna Consciousness, Yoga, Existentialism, the Kharma Dzong Society, Transcendental Meditation, and the philosophy of the American Indian. After a not too lengthy but informative study, we arrived at a major conclusion: even in the Far Eastern countries which practice a religion that speaks of man's oneness with nature, there are major ecological problems such as deforestation and air and water pollution. We have had lengthy discussions debating whether this is due to the fact that people just do not "practice what they preach," or the fact that most any religion can be interpreted in a variety of ways, or some other factor.

In the course of this entire project, I feel that I have changed greatly and learned many things, some of which are practical skills such as arranging appointments, interviewing techniques, long range planning, and the often difficult task of self-expression. But I have learned a lot in other areas also. One of the major changes I have found is that I have an increased tolerance for and understanding of other people's values, when they disagree greatly with mine. We are now at the point where we have decided upon some important concepts which we want to express, but we don't know yet how we will get them across in our book. We are preparing to visit other textbook producers and study the methods of written communication and graphics with the hope that we will be able to produce an interesting and valuable book. Needless to say, I am looking forward to the coming months.

Author and Date Unknown

The two major areas that seem like priority to me are education and the environment. Our project has turned out to be much more involved with education than with the environment. It is as though the environment has provided a raw material to use as the medium for presenting our ideas on education. In this way what we have done can be applied to many other areas than just the environment. It is significant that we used the environment as our media however, since it is such a current topic. The major focus in environmental education is awareness, which leads to more creative work than would some other subjects; whoever heard of teaching an awareness of history or algebra?

Educationally, our major focus has been that education can be much more effective outside the classroom than within it. If there is a real reason for wanting to find out something or to gain an experience whatever is learned will be much more meaningful and will last longer and probably be more thorough than if it is just an assignment with no practical application. By outside the classroom, I do not mean just a report that is assigned to do on one's own time, I mean a project with a purpose. In the area of the environment such projects are reasonably easy to locate, it might be a little tougher with ancient history, but if there is no practical application of ancient history why teach it, it could be pleasure reading for those who are interested, as some people are (I do not mean to imply that there is no practical application for ancient history, it just serves as an example).

The only real thing we would like to push about the environment is to ask, beg or otherwise convince people to pay attention to what is around them, locally, day to day, or worldwide, during a lifetime. In a year's time we have reached only questions, no solutions about the world's environmental crises. We have even been asked if it is indeed a crisis.

There are a number of other things, details, techniques, and piddly stuff that we have found to be important in getting anything done, both as a group and individually. One of the first was "remember alternatives." Other things dealt with group interaction, ways of meeting and dealing with people; detecing B.S., your own and that which you constantly get from other people; and being reasonable about what you can accomplish. It is fine to set yourself big and noble goals, but when it comes to the point of assigning tasks try to be halfway reasonable about assessing each person's capabilities and desires.

Craig, June 14, 1972

When we got together in September, none of us knew each other very well and we seemed rather apprehensive about being and working together. Once we started working with Rocchio we began to be a little closer and started working more effectively together--this seems to be a key to getting a group going--if they are unfamiliar with each other and/or will be working together for a long time--have group processing before starting on real content. Then once on "content" or active working, whatever the project is concerned with--it seems very important to open up a wide range of alternatives, both in ways of working and what you want to look at.

In addition the group seems kind of in the middle of two extremes--(1) setting objective, set procedure, making a big trip and laying it on students with no openness at all, and (2) pure openness, super-letting-it-flow. We seem to like to set up a certain amount of broad goals--then begin doing something and then writing it up or whatever. From these sprung the Schoolbook and BE--both tremendous learning experiences (at least for me).

Craig, Date Unknown

During the first few weeks of the project, we were all reasonably conscious of how our group was working. We had discussions on topics chosen by the staff to help prepare us for the year's work. We were told that our opinions counted and Rocchio was there to facilitate communication. We got to be quite proficient at discussing ideas, although some of us still talked a lot more than others.

Following our first retreat we did not have any meetings just to talk about ideas, much less feelings. We had become product oriented. Every time the group got together (which got to be more and more seldom) it was to work on one specific thing. While this was probably good for the immediate problem, the self-enforced shut-down of interpersonal communication probably lost some talent.

Of course no one ever said that feelings should not be expressed, or reactions checked out, but that sort of thing was never begun to any extent. An early half-joking consensus was that anything vaguely connected with "touchy-feely" was to be avoided. We did get to know each other better than if we had just been in school together or worked together at McDonald's, but there were an amazing number of things which came out at the last retreat which had not been touched before.

Some of us began to wonder if the project would have been very different with more interaction. Some obvious differences would have been the students feeling less paranoid about the staff stealing their power, and the staff being less afraid of stepping in at the wrong time. There were several individual problems which might also have been taken care of differently.

APPENDIX L

Staff and Consultants

L-1 Student Staff Members

L-2 Professional Staff Members

L-3 Board of Advisors

L-4 Consultants

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Student Staff Members

Bank, Susanne. Senior, Boulder High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Bouricius, Dan. Senior, Fairview High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Brunton, Janey. Senior, Fairview High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Heltzel, Allan. Senior, Fairview High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Holdrege, Craig. Senior, Boulder High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

McElroy, Steve. Senior, Fairview High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Rasmussen, Jon. Senior, Fairview High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Wiggins, Sheryl. Senior, Boulder High School, Boulder Valley Public Schools, 6500 Arapahoe Avenue, Boulder, Colorado 80302.

Community People who were paid for their services due to the extent of the services performed:

John Rifkin

Lucy DeChadenedes

Louise Tenenbaum

Steve Hodes

Professional Staff Members

Irving Morrissett, Executive Director, Social Science Education Consortium, Professor of Economics, University of Colorado

Karen B. Wiley, Associate Director of SADMESS, Staff Associate, Social Science Education Consortium

Suzanne Wiggins Helburn, Co-Director of SADMESS, Professor of Economics, University of Colorado, Denver Center

Regina B. Greene, Staff Associate, Social Science Education Consortium

Connie (Maupin) Butts, Secretary for SADMESS, Social Science Education Consortium

Board of Advisors

Gilbert White, Director, Behavioral Science Institute, University of Colorado

David Hawkins, Director, Mountain View Center for Environmental Education, 1441 Broadway, Boulder, Colorado

Abraham Flexer, Associate Chairman, M C & D Biology, University of Colorado

R. Curtis Johnson, Chairman, Chemical Engineering Department, University of Colorado

Nicholas Helburn, Director of ERIC/ChESS and Professor, Department of Geography, University of Colorado

Manert Kennedy, Project Director, Behavioral Science Institute, University of Colorado

Robert Samples, Earth Science Education Program, 900-28th, Boulder, Colorado

CONSULTANTS

Boulder Valley Public Schools

Eugene Gillette, Assistant Supervisor, Boulder Valley Public Schools
6500 Arapahoe Ave., Boulder, Colorado

Patrich Ryan, Superintendent of Public Schools, Boulder Valley Public Schools,
6500 Arapahoe, Boulder, Colorado

Phil Cohen, Coordinator for Social Studies, Boulder Valley Public Schools
6500 Arapahoe, Ave. Boulder, Colorado

Richard Telfer, Director of Curriculum and Research, Boulder Valley Public
Schools, 6500 Arapahoe Ave., Boulder, Colorado

Ralph Bacchus, Coordinator for the Science Program, Boulder Valley Public
Schools, 6500 Arapahoe Ave., Boulder, Colorado

Sharon Christman, English Coordinator, Boulder Valley Public Schools, 6500
Arapahoe, Boulder, Colorado

Rita Majors, Teacher, Fairview,High School, Boulder, Colorado

Pat Jones, Teacher, University Hill Elementary School, Boulder, Colorado

ERIC/SSEC

Beverly Angell, Secretary, SSEC

Jean Bankhead, Librarian, ERIC

Joanne Binkley, Information Scientist/Bibliographer, ERIC/ChESS

Kenneth Butts, Business Manager, SSEC

Barbara Capron, Teacher Associate, SSEC

Cheryl Charles, Staff Associate, SSEC

Steve Danielski, Editor, ERIC

James Davis, Assistant Director, SSEC

Sharon Ervin, Staff Associate, SSEC

Frances Haley, Staff Associate, SSEC

O'Dette Havel, Library Assistant, ERIC

Peter Helburn, Secretary, SSEC

Marcia Hutson, Administrative Assistant, SSEC

Stan Kleiman, Teacher Associate, SSEC

Tedd Levy, Teacher Associate, SSEC

Pauli Margolis, Secretary, ERIC

Gene Martin, Secretary, SSEC

Sydney Meredith, Abstracter/Information Request Supervisor, ERIC

LaVerne Morton, Administrative Assistant, ERIC

Becky Reinke, Acquisitions Coordinator, SSEC

Lisa Richmond, Secretary, SSEC

Ellen Schultheis, Administrative Assistant, SSEC

Rachel Sennert, Secretary, SSEC

W. Williams Stevens, Jr., Associate Director, SSEC

Mary Jane Turner, Staff Associate, SSEC

Nancy Vickery, Secretary, SSEC

Vi Wagener, Assistant Director, ERIC

Others

Robert Fox, Professor of Education, University of Michigan, Ann Arbor, Michigan

Howard Mehlinger, Director, Social Studies Development Center, Indiana University, Bloomington, Indiana

Richard Rocchio, Director, Colorado State Environmental Education Program, Denver, Colorado

Ronald Bigelow, Director, Undergraduate education Program, Bureau of Education and Personnel levelopment, U.S. Office of Education, Washington, D.C.